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ANTHROPOLOGICAL SERIES VOL. XXI, No. 1

SERPENT WORSHIP IN AFRICA

BY

WILFRID D. HAMBLY

ASSISTANT CURATOR OF AFRICAN ETHNOLOGY

---

8 Plates in Photogravure and 1 Map

BERTHOLD LAUFER

CURATOR, DEPARTMENT OF ANTHROPOLOGY

EDITOR

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1931

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MAP SHOWING DISTRIBUTION OF SERPENT BELIEFS

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PREFACE

Prior to my journey in Angola and Nigeria as leader of the Rawson–Field Museum Expedition of 1929–30, I had collated a considerable amount of evidence respecting serpent cults and beliefs of Africa. The journey in Angola resulted in the collecting of a large number of carved wooden snakes of excellent Umbundu workmanship, but there do not appear to be any beliefs beyond a few minor ideas relating to the snake as an omen. Dreaming of a snake implies that the dreamer will be tied and sold into slavery. When the twisted wooden snake is shaken to the top of the diviner's basket, a twisting of the limbs with pain is inferred.

At Ibadan in Nigeria the white crocodile is still an object of veneration (Plate I). The creature is kept in a pool surrounded by a low wall of mud, and in attendance there is a priest who is responsible for feeding the reptile. Albinism is rare in crocodiles, hence it is not surprising that this particular creature should have been chosen for veneration. Tradition gives its age as two centuries, and there is little doubt that human victims were at one time offered.

P. A. Talbot (I, p. 24) states that everywhere in Ekoi mythology the cult of the snake is found to be closely associated with that of the crocodile. Crocodiles are regarded as guardian spirits of the Lake of the Dead, where ghosts foregather; consequently the reptiles are specially sacred.

Forty years ago human victims were offered to crocodiles of the Lagos Lagoon when the waters rose abnormally and threatened to swamp the inhabitants. A few crocodiles selected by the priests because of certain markings were treated with great veneration; they were regularly fed and kept in houses thatched with palm leaves. These sacred crocodiles were said to be the messengers of Oloso, goddess of the lagoon and patroness of fishing (Ellis, III, p. 72).

At Ifé I was interested in a pool of sacred catfish which are associated with the creation of the ocean and its separation from the land. As will presently be shown, the keeping of crocodiles, serpents, catfish, and other creatures in sacred places is part of a widely distributed cultural trait which affects many parts of West Africa, the Congo Basin, and the region of the Great Lakes.

A survey of the literature dealing with the serpent in relation to human beliefs and practices reveals a vague and inconsistent use of the word "worship." The majority of writers have shown themselves

willing to gather under this heading almost any form of cult or belief relating to the serpent. The difficulty of supplying a rigid and logical definition of an act of worship is indisputable; but in practice, confusion of thought may be avoided by using the word only in connection with certain beliefs and acts. These might reasonably include ideas of a superhuman being, a priesthood, provision of a special house or locality, and also the employment of sacrifice and ritual procedure. The word "cult" may be used to designate beliefs and acts whose nature is less clearly defined than is the case with concepts and ceremonies surrounding an act of worship. In a third category is a large and miscellaneous assortment of beliefs. These include a use of the fat of snakes as medicine; wearing of amulets to guard against snake-bite; magical means, other than amuletic, of curing snake-bite or becoming immune to the poison.

The subject of serpent worship has suffered from hasty generalizations and a lack of classificatory treatment. Consequently there has been assumption of similarities and identities where they do not exist. With regard to Africa, Frobenius has published a map purporting to give a distributional survey of beliefs centering around the serpent. In the absence of all but the scantiest information accompanying the map, it is impossible to use, evaluate, and criticize the diagrammatic representation.

A survey of Africa in relation to the nature, distribution, interrelationship, origin, and migration of serpent cults, worship, and beliefs, may be conveniently arranged under the headings detailed in the Table of Contents. Although beliefs cannot always be sharply demarcated, the divisions under which evidence is grouped are sufficiently clear to give a logical working classification. Legitimate use of the terms reincarnation, transmigration, and transformation, is rendered difficult because of lack of clarity in the minds of native informants. Transformations are classified (p. 35) and at the same time are contrasted with reincarnations.

Following arrangement of typological beliefs, there is the necessity for discussing their possible relationships to each other, their geographical and historical distribution, also the probabilities of external origin as opposed to single or multiple internal origin.

SERPENT WORSHIP IN AFRICA

I. PYTHON WORSHIP

In his "Description of the Gulf of Guinea" (1700) Bosman describes the python worship of Whydah, in Dahomey, as follows: "Their principal god is a certain sort of snake which professes the chief rank among their gods. They esteem the serpent their extreme bliss and general good." This account remarks on the connection of the serpent with trees and the sea. "The snake is invoked in excessively wet, dry, or barren seasons, and on all occasions relating to government." At that time even the king sent presents to the snake house, "but I am of the opinion," says Bosman, "that these roguish priests sweep all the offerings to themselves, and doubtless make merry with them." Then follows a description of the snake house, and a reference to the decline of the custom of presentations from the king to this institution. In Bosman's day there was a superstition to the effect that the sacred snake appeared to the most beautiful girls in order to induce madness. Such girls had then to enter the service of the snake temple. Bosman states that the priests persuaded the girls to feign frenzy so that they might be sent to the snake house.

On the whole, this account is well substantiated by many subsequent observers who have left reports deserving of comparative study. In addition to this there are still in circulation folklore stories which describe the aggressive attitude of the snake toward beautiful girls.

Burton (1864) states that at Whydah the snake was associated with trees and the ocean in acts of reverence. The python house (Plate III) is described as being only a cylindrical hut of clay covered by a thatched roof of extinguisher shape. Two long, narrow, doorless entrances faced each other. They led to a raised platform of tamped earth on which there was nothing but a broom and a basket. The house was whitewashed, inside and out. A little distance from the entrance were small pennons of red, white, and blue cottons tied to some tall poles. In addition to the python the crocodile and the monitor were local objects of worship. There were seven pythons reposing on a ledge where the wall joined the roof. These reptiles often wandered at night, and on one occasion Burton saw a native bring one of them back to the hut. Before raising it he rubbed his right hand on the ground, and dusted his forehead as if groveling before a king. In former times the man who killed a python, even

accidentally, was condemned to death, but a fine was later substituted for capital punishment. The extreme penalty, of which Duncan gave a detailed description (1847), was death by burning. The culprit was usually clubbed to death as he rushed from the burning hut to the river. In the words of Burton he was "mercilessly belaboured with sticks and pelted with clods the whole way by the fetish priests."

The account of Skertchly (1874) agrees well with that of Burton. Skertchly adds the information that a man who accidentally meets a python has to pay a fine when he returns the reptile. Ordinary snakes may be killed with impunity. When a child is touched by a python, the parents have to consent to the adoption of the child into the python priesthood, and in addition they are required to pay for his training. Danh is a potent fetish of Whydah and tutelary guardian of the python. There are no images of the python, and "adoration" is paid to the living creature only. There are snake wives; these are women concubines of the priests, ostensibly devoted to service in the temple. The python priests are very numerous. When a devotee goes to the python priests, they collect a fee and promise that his wishes shall receive attention.

In describing the Ewe-speaking people of the Slave Coast, Ellis is more explicit on some of the foregoing points. Danh-gbi is the deity of the python that is worshiped in Dahomey, especially at Whydah, Agweh, and Great and Little Popo. The snake itself is not worshiped, but rather its indwelling spirit, the outward form of the python being the manifestation of the god. Ellis proceeds to explain the connection of the python with gods of war. He states that before 1726 python worship was new to the Dahomeyans, who were often at war with the people of Whydah, where python worship had been in vogue for an unknown period. On one occasion the pythons do not appear to have performed their defence of Whydah with success. The attacking Dahomeyans, according to Snelgrave, seized the sacred pythons, saying, "If you are gods, speak and try to defend yourselves." There was no response to this challenge, so the Dahomeyans killed and ate the pythons.

On another occasion the pythons seem to have acquitted themselves more gallantly in the defence of Whydah against the Dahomeyans. On this memorable day the python god actually appeared and caressed the faltering soldiers with his tail and head. The chief priest held the python aloft, and so encouraged his men that they carried everything before them. A splendid temple was

built at Savi for the python god Danh-gbi; here the priests preserved the python which led them to victory. There is a popular idea, says Ellis (1890), that the snake who led the way to victory still lives. He resides in a tree to the top of which he climbs every morning and hangs down to measure his length. When he is long enough to reach the earth, he will be able to reach the sky.

The python god is the god of wisdom, earthly bliss, and benefaction. The first man and woman were blind, but he opened their eyes. White ants are the messengers of the python. Whenever a native sees a python near a nest of white ants, he places round the reptile a protecting circle of palm leaves.

Images of the python are made in iron; these are representations of both the male and female reptile. Along with offerings of this kind are gifts of water in calabashes. All offerings have to be placed near to the banks of rivers or on the shores of lagoons, for the python god loves water. In the enclosure round the temple are sacred trees. Snakes are free to wander, but the priest retrieves them. Before he does so, he purifies himself by rubbing certain fresh green leaves violently between the palms of his hands. Then prostrating himself before the reptile, he carries it gently home. Opposite the python house are the schools where any child who has been touched by a python has to be kept at the expense of the parents, so that he may be taught the songs and dances peculiar to the worship. In olden days adults were similarly liable. Not even the wives and daughters of the most influential chiefs were exempt from this penalty attached to contact with a python.

A native who meets a python says, "You are my father and my mother." The native then cries to the god, "My head belongs to you, be propitious to me." The punishment for a native who kills a python accidentally is burial alive. For the same offence a European was to be decapitated. Ellis continues with stories of natives running the gauntlet from the burning hut to the river. One of his stories is from Des Marchais (1731). Ellis is, however, more than a compiler of extracts, for he himself was on the West Coast (1886–90).

Ellis mentions two thousand wives of the python temples; these are secretly married to the priests with unknown rites of initiation. It is probable that the priests consummate the union. The ordinary duty of the wives is to bring water for the pythons, to make grass mats, to decorate the temple at festivals, and to bring food for the dancers. In these rites there are excesses in which the wives give themselves up to libertinage. They say the god possesses them, and

he it is who makes them pregnant. Ellis notes that by 1890 there was a decline of custom noticeable, if comparisons were made with the year 1886. The annual procession was abolished; so also were the severe penalties for offences against the python god. "The temple is now visited only once a year by the headman of Whydah, who presents animals for sacrifice, while invoking the good offices of the god on behalf of the king and the crops."

In former times, on the evening preceding the procession, the priests and Danh-si (python's wives) went round the town, announcing the approach of the festival. They warned all the inhabitants to close their doors and windows, also to abstain from looking into the streets. The natives believed that the penalty for watching the procession would be an attack by maggots which would burst from all parts of their bodies.

The priests and wives armed themselves with clubs on the morning of the great day. Then they ran round the town, clubbing to death any dogs, pigs, and fowls that were wandering in the streets. This was necessary, because animals might annoy the python god. It was said that dogs worried him by barking, while poultry pecked at his eyes. A hearty meal reduced the python to a comatose condition in which he allowed himself to be carried round in a hammock with the procession. First came a body of priests and wives armed with clubs for the destruction of stray animals. Following them were men beating drums and blowing horns. Next followed the hammock in which the python was reposing, and round this danced four priests and four wives, quite naked. The procession continued a whole day, and at night an orgy was held in the python's honor.

At minor festivals, which were held three times a year, everyone was allowed to take part in the revelry, which included dancing, feasting, and singing. On these occasions the priests drank rum mixed with blood. Before the offering of a human sacrifice the wives danced with strange contortions while balancing earthenware jars on their heads. They said possession by the god enabled them to do this. Public processions in honor of Danh-gbi were held in times of pestilence, war, and drought. On such occasions human victims were sometimes sacrificed.

When describing the Tshi-speaking people of the Gold Coast (1887) Ellis gives an instructive instance of the rise and fall of a cult. In the year 1824 the Fantis gained an unexpected victory over the Ashantis, who had usually proved to be their masters. The happy victors attributed their success to the intervention of a

god. This surmise was confirmed by the priests who named a local god as the giver of victory. It is not clear that this deity was a python god, but some time after the Fantis had established a cult of their benefactor, he became identified with snakes which swarmed in the locality. Furthermore, the god was thought to present himself to his worshipers in the form of the deadly *ophidia*. Other snakes which accompanied him were regarded as his offspring and dependents.

The first sacrifices were human beings, but later eggs were substituted. If the god did not present himself at the expected time, the priests made search for the offender, who was heavily fined. The god did not always assume the form of a serpent; he might manifest himself as a leopard. When undisguised, he was of monstrous shape and black in color. The cult, which flourished from 1824 to 1867, became extinct when troops occupied the site and cleared the neighborhood of snakes.

Rattray's description of reverence for the python in Ashanti includes statements which might reasonably be regarded as evidence of a decadent python cult. But the information is more correctly classified under totemism.

Johnston refers to divination by observation of tame snakes in Liberia. The snakes usually employed are the pythons (*Python*). In eastern Liberia, behind the Kru and Grebo countries, practices strikingly like the snake worship of Dahomey exist in many villages.

Büttikofer has statements which suggest that further research in the hinterland of Liberia would bring to light confirmatory evidence. Büttikofer states that in several districts there were guardian animals of which the python was one. Near a lake in Buluma a python of the species *sebae* (the large python of Africa), was seen creeping about. No one dared harm the reptile; on the contrary, it was guarded and fed. This was the only instance of its kind noted in Liberia, and it recalled to the observer the python cult of Dahomey.

The word Mossi is applied to a large group of peoples who inhabit the region on the southern side of the great bend of the river Niger. Mangin mentions the serpent as one of several animals which are kept in sacred groves in this region. Within the enclosure the animals, which include the crocodile and the leopard, are respected, but they may be killed if away from the sacred grove. The python is in some localities regarded as the guardian of the village. The reptile contains a guardian spirit which will accompany a traveler on his journey if asked to do so. It is forbidden to cut

down or even to gather wood in the sacred grove. Every attempt is made to prevent a stranger from violating the sacred wood, but if restraint is impossible, the people will offer a sacrifice on his departure.

The Hostains-d'Ollone Mission to the French Sudan (1898–1900) reported that the Sapos have fetish serpents in two houses encircled by a sacred enclosure, though the reptiles are sometimes to be seen loose in the village. These serpents are evidently not pythons, because according to the report these dangerous serpents are captured by a man who knows how to handle them with impunity (Plate IV). The natives say that these snakes give protection to the village and that they remain harmless by divine command.

It is not until Nigeria is reached that there is evidence of python worship in any way comparable to that of Dahomey. The art of Benin certainly suggests the importance of the snake in decorative design on bronze castings and wood carvings (Plate V). Nyendael (1704) describes a metal snake of good workmanship on the city wall. There was also a large metal serpent on the king's palace. Leonard, who studied ophiolatry in the Niger Delta, says that the pythons of Benin symbolized the war god, Ogidia; they were brought from Benin to Brass by a chief, Alepe, some twelve generations ago. All over the Niger Delta ophiolatry exists. Irrespective of locality the serpent revered is the python. These creatures are fed and pampered to such an extent that they become a public nuisance. In many districts of southern Nigeria the python is the principal object of ancestral adoration. Known in Brass under the name of Ogidia, it represents the tribal war god of the people. The god at times takes possession of the priest, who then speaks in a dialect from Old Calabar, instead of the Brass dialect. The priest induces possession by lying in the mud of the river for seven days without food, but during this time he has a quantity of rum. The priest, when possessed, will prophesy wars and their results, accidents and other events, which may be avoided by sacrifices. Straying pythons are carried to their reservation in the bush by the priest, who must first perform a special ceremony. When the reptiles are of enormous size, they are transported on stretchers.

Very seldom is a human being attacked by a python, but, if such an event happens, the priest is the only one who may effect a rescue. If a python has to be carried to the sacred enclosure because of its depredations, its prey is allowed to remain with it. The snake is handled carefully so that it may not be annoyed or hurt. Anyone

who fails to report an accidental injury to a python is cursed by the ancestral spirits, who inflict sickness or death. These penalties may be avoided by intervention of the priest. The punishment for wilfully killing a python is death. This sentence may, however, be remitted if the offender pays a fine, offers a sacrifice, and takes a bath in sacred mud. "These rules are milder than they were before the days of British administration. Formerly the penalty for killing a python was death even in the case of a chief. Old penalties survive in the interior districts." A public levy is made for giving elaborate burial rites when the python dies from natural causes. Every python has a human soul within it; this must be liberated by ritual after the death of the reptile. Any offence against the snake is an offence against the ancestor. When a python has been killed, the people will not admit the extermination of their ancestor.

Talbot (1912), Thomas (1914), and Basden (1921) have all reported on the subject of python cults (probably the term worship is justifiable) in southern Nigeria. The evidence from these observers may be briefly summarized as follows:

Talbot gives a description of the river Kwa and adjacent lagoons in whose dark waters dwells Nimm, the terrible, who is always ready at the call of her women worshipers to destroy those who have offended. This goddess manifests herself as a huge snake or as a crocodile. In Ekoi mythology the cults of snakes and crocodiles are found to be closely connected. The python shares with the crocodiles the guardianship of the sacred lake. The snake is used as a design in relief on the far wall of Egbo houses. A snake is never driven from the houses of those who belong to the cult of Nimm. Such people strew powdered chalk before the reptile, taking care not to frighten it. If a snake enters a house not protected by Nimm, the owner must consult a diviner to find out whether the reptile has been sent by ghosts or juju. The sacred waters of Ndem near Awa are one of the places where sacrifices are made to the python spirit in the lake. The victim, usually a white cock or a white goat, is beheaded so that the head falls into the water. If the head floats, the omen is good, for Ndem will take it away to devour. Should the offering sink, the sacrifice must be repeated. Surplus flesh may be eaten in the adjacent forest; but the man who takes any meat home will die before the moon and stars have risen. The only person allowed to make a sacrifice is one of the family of the "Priest of the Holy Water." No person may approach the sacred pool except under the leadership of the priest.

In describing the python worship of Dahomey there was evidence that the reptile was associated with success in war. Talbot gives a legend of Nigeria which associates the python with warfare. The python stiffened his body, so allowing some defeated troops to cross a river. The python relaxed his body and submerged the pursuers in the river when they attempted to follow. "In gratitude, none of the people whose ancestors were thus saved, kills or eats the python to this day."

Talbot relates that in 1909 one of his carriers killed a python. Immediately there arrived a deputation of chiefs followed by a crowd of people. These demanded the hatchet with which the reptile was killed, the dish on which the parts had been placed, and a fine to appease the ghost lest it should return to trouble them.

Continuing with the personal investigations of Talbot, there are several python cult concepts which are important because of their corroboration of evidence already adduced. Among the Bini, the chief juju in the Badagri region used to be the Idagbe, whose symbol was a large black python. To this creature an annual sacrifice of a bullock, fish, and beans was made. For this purpose the priests removed their fine garments and put on simple white cloths before they sat down near the shrine. The people were blessed by sacred water which the priests threw from the sacred juju pot. There were both priests and priestesses, the latter being more numerous. The sacerdotal offices, which were usually hereditary, involved a long and arduous training. The priestesses, like those of the Dahomeyans, would go into ecstasies in which they revealed the future.

Beliefs held by the Ijaw are of particular interest because these people are probably the oldest inhabitants of Nigeria. The Ijaw think that pythons hold the spirits of the sons of Adumu, himself a python, and the chief of the water spirits. Women are forbidden to mention his name or to approach his temples. At times lights may be seen gleaming below the surface of the water which this python deity inhabits. On some occasions the lights rise to the tops of the palm trees. Serpents are carved on the statue of Adumu at Adum' Ama on a small tributary of the Santa Barbara River. Here come all who aspire to act as diviners or prophetesses. Such a priestess is forbidden to have relationships with a man; her husband is one of the sacred serpents. Every eighth day the water spirit is supposed to rise out of the water in order to visit his wife. On that day she sleeps alone, does not leave the house after dark, and pours libations before the Owe (water spirit) symbols. Inside her shrine are posts and

staves representing serpents whose coils are said to typify the whirling dance performed in honor of the chief python god Adumu. "It is the spirit of the python that enters the priestess, making her gyrate in the mystic dance and utter oracles."

When inspired, she will dance for a period varying from three to five days, during which she may not drink water. The language spoken during trance is said to be incomprehensible to the worshipers. In the Brass country, where Ogidia, the python war god, is worshiped, there are three main festivals in his honor. At the first of these (Buruolali), there is a presentation of yams at night, by a woman. These yams, which have been procured by the priests and chiefs, have to be in the form of serpents. At a second ceremony, a smooth-skinned male is offered as a sacrifice (Indiolali ceremony). Thirdly, there is Iseniolali. At this rite, women who have been appointed by the chiefs and priests gather shellfish. These are cooked at the shrine of Ogidia amid great rejoicing. Among the Ijaw people, pythons are never killed because they are thought to bring a blessing on any house they enter. At death the reptiles are buried with the honors of a chief.

Speaking of the Ibo people, N. W. Thomas says that entry of a python into the house is a favorable omen. Minor deities inhabit the bodies of snakes. Pythons are held sacred throughout the region of marsh lands and waters inhabited by the most ancient tribe of all, the Ijaw. There are traces of ophiolatry in many other parts. Among the Ijaw, the cult of Tamuno, a mother-goddess, is exceptionally strong.

The researches of Basden (1921) are more recent than any of those described. This writer distinguishes between an act of worship and reverence for sacred objects. Among the Ibos, examples of sacred objects are numerous and varied. So also are the objects offered in sacrifice. The python must be added to the list of sacred animals, which include certain fish and monkeys. "Over the greater part, if not the whole of the Ibo country, pythons, more especially the smaller species, are sacred. These reptiles are referred to as 'our mother,' and to kill one is a grave offence. If a man has the misfortune to kill one, he will mourn for a year, and will abstain from shaving his head. Monkeys, birds, and various animals are treated similarly in the regions where they are held to be sacred." If a person is injured by a sacred tree or reptile, the inference is that he has committed some offence. With the exception of the python, snakes are killed without hesitation. Those who have forsaken paganism include the python among edible meats.

West Africa undoubtedly yields evidence of python worship, especially in Dahomey and southern Nigeria. There is also supplementary evidence with regard to python cults and beliefs. Among these data must be classed a few facts relating to the beliefs of the Bavili, a people described by Dennett, who lived for some years on the Lango Coast.

There are skins of snakes in the sacred groves. Ndoma is a black snake, which is some six to eight feet in length. The reptile is said to lift itself on its tail to strike dead any person who attempts to pass it. Ndoma appears to have some connection with ideas of moral values. When a man is wearing the iron marriage bracelet (*ngofo*), he asks himself the following questions, when he meets the snake Ndoma:

"Have we eaten the flesh of any animal we have killed the same day?

"Have we pointed our knives at anyone?

"Did we know our wives on the day of rest?

"Have we looked on women in their periods?

"Have we eaten the long chili peppers, instead of the smaller kind?"

Ndoma is the snake which causes man to reflect and reason.

A geographical survey through the Congo, South Africa, and up the east is negative with regard to the existence of python worship. Not until the region of Lake Victoria Nyanza is reached is there evidence of a definitely organized python worship with a sacred temple, a priesthood, and definite ritual acts including sacrifice. There appears to be no definite evidence of python worship in Cameroon, but the serpent design is often employed in wood carving and the equipment of medicine-men (Plates VI and VII).

Accounts of python worship in Uganda have been supplied by Canon J. Roscoe who spent twenty-five years in that region. His contributions to the subject are dated 1909 and 1923.

Worship of the python is confined almost entirely to one clan, in Budu, South Uganda. The temple is situated on the shore of Lake Victoria Nyanza, on the bank of the river Muzini. The temple is a large conical hut built of poles and thatched with grass. The floor of this structure is carpeted with sweet-smelling grass. On one side of the building is the sacred place of the snake and his guardian, a woman who is required to remain celibate. Over a log and a stool, a bark cloth is stretched for the python to lie upon. In one side of

the building there is a circular hole so that the python is free to go to the banks of the river. There the reptile feeds on goats and poultry which are tied to posts near the water. In addition to this the python is fed daily on milk from sacred cows. White clay is mixed with the milk. The reptile lies over the wooden stool and drinks the milk which is offered in a wooden bowl held by the priestess. The python is supposed to give success in fishing. He has power over the river and all that is in it. For this reason a special meal is given to the python before the keeper goes out to fish. The names of the python are male names. The time of worship is at new moon. Newly married men, also the husbands of barren women, make sacrifices and requests to the python, within whose power lies the assurance of fertility.

For seven days before an act of worship no work is done in the vicinity of the temple. Beating of drums announces the beginning of the rite. The priest attends with a following of chiefs. The priesthood is hereditary, and the chief priest is head of the system. The priest receives the gifts from the people and explains their requests to the python. A priest, dressed in a ceremonial robe, drinks from the bowl of the python, then he takes a drink of beer. The spirit of the python goes into the medium who wriggles on the floor like a snake, uttering strange sounds and talking in a language which has to be interpreted to the worshipers. The people stand round, while the drum is beaten, and the python delivers its oracle. When the medium has ended his speech, he lies in a state of coma, during which time an interpreter explains to the supplicants those things which they must do in order to realize their desires.

This ritual is repeated on each of seven successive days. When children are born as a result of supplication to the python, the parents have to bring an offering to the temple. If this is neglected, the children will sicken and die. The keeper of the python obtains the milk from the island of Sese. Here the cows belong to the god Mukasa whose wife is a female python. At one time the kings of Uganda sent the headmen of each district to ask the python to grant children to the royal house.

The Bahima believe that the spirits of their dead princes and princesses enter snakes. A belt of the forest Nzani is sacred to these reptiles, which are fed and protected by priests in a temple. The bodies of princes and princesses receive preservative treatment. There is said to come from the abdomen of the corpse a python, which is reared for a time, then set free in the sacred enclosure. The same

beliefs and practices are carried out in relation to the idea of a transmigration of the souls of royalty into lions. In the Banyankole tribe the corpse of a sister of the ruler is wrapped in bark cloth and carried to the royal burial ground. Here the same rites are enacted as in the burial of the king. The royal princess is said to be born again in the form of a python which lives in the sacred forest.

There are two unquestionable areas of python worship, namely, West Africa and a smaller region in Uganda, but there is no definite evidence of similar institutions in the great extent of country between the two centers. There are, however, usages which may be the residue of a decadent python cult.

Schweinfurth describes the way in which pythons are welcomed to the huts of the Dinka: "I was informed that the separate snakes are individually known to the householder, who calls them by name and treats them as domestic animals. The species which is the most common is the giant python [*Sebae*]. Others are *Psammophis punctatus*, *Psammophis sibilans*, and *Ahaetuella irregularis*." Such a statement as this may indicate that python worship existed in country lying between the two main centers of python worship. Encouragement of, and respect for pythons may be a relic of a defunct worship, or the explanation may be more simple. The pythons may be encouraged because they eat or drive away rats and other small pests.

The following factors are common to the East and West African forms of python worship:

(1) The python only, but no other snake, is selected for definite worship. This choice may be due to the impressive size of the large species of python (Plate II). The reptiles are tractable and non-poisonous. All observers are agreed that the python rarely attacks a human being.

(2) Hut structures (temples) contain internal arrangements for feeding the reptiles.

(3) The python embodies a superhuman being, god of war, spirit of the water, patron of agriculture, or goddess of fertility.

(4) The king sends messengers and offerings. He asks for prosperity.

(5) Sacred groves are found in addition to temples.

(6) Acts of worship bring people who offer sacrifice and make requests.

(7) Priests and priestesses are employed; the latter are wives of the python. Both dance themselves into ecstatic trance in which

they make oracular utterances which are given in a language not understood by the worshipers.

In Uganda the main ceremonies of supplication are carried out at new moon; to this I have found no parallel in the ceremonies reported from West Africa. The Uganda ceremonies include the keeping of special cows for supplying milk to the sacred pythons. One would not expect this trait of the python-worshiping complex to appear in the coastal regions of West Africa where few, if any, cows are kept. In the Lakes Region emphasis is placed on the reincarnation of kings in pythons. The idea of reincarnation is common in West Africa, but there is not the same insistence on the reincarnation of kings in pythons. There is, however, the idea of reincarnation of a god, which is perhaps the same generic concept as the reincarnation of a king.

There is a close agreement between the python worship of West Africa and that of Uganda. A discussion of the noticeable clustering of python-worshiping centers at two ends of a probable line of migration across Africa, is a point to be discussed in relation to the map of distributions. For the present the line of inquiry is confined to a classification of the main beliefs in connection with serpents.

II. THE SERPENT AND FECUNDITY, TRANSMIGRATION OF SOULS, TOTEMISM

In describing the python worship of West Africa and Uganda it became clear that the python was the symbol of prosperity as judged by appeals to him for success in fishing and agriculture. Childless women brought their requests to the temple; and when the children were born, some acknowledgment had to be made to the python. The rainbow snake guarding a water supply is an idea which carries with it a general concept of fertility. There are, however, a number of examples of a specific kind relating to the snake as a symbol of human fecundity. That this should be so becomes quite plain from an examination of the zoological evidence. These instances of the serpent as symbolic of human productiveness have apparently no necessary connection with any act of worship; they form rather a special class of beliefs. With the concept of serpents and fecundity are sometimes associated ideas of reincarnation, possibly also of totemism, in the sense of a sentimental alliance between man and animals.

Tautain recollects having seen a Mandingo of Bambouk offer a month's pay to save a python from death. If he had not prevented its death, his family would have perished. This man avoided treading on ground which had been covered by the python, presumably in fear of wounding the reptile itself. He said that the python came to visit every child born into his family some time in the eight days following birth. The man expressed his intention of killing all children who were not so visited, because they would be unlucky.

An Ashanti belief in the influence of the python on fecundity is expressed in a legend. Originally there were two pairs of men and two pairs of women, one pair from the earth and one pair from the sky. These were all sterile until the python was sent by the sky god, Onyame, to make its home in the river. The python bade the men and women stand face to face on the banks of the river. Then the reptile plunged in and sprayed them with water. The women conceived and brought forth their first children who took the name of the river as their *ntoro*. The relationship of the *ntoro* to a human being is a concept difficult to understand, but it is totemic in its import. This *ntoro* is one of the two great elements in every man and woman, but it can be transmitted only by the male. The word is perhaps best translated by "spirit." Sometimes the word *ntoro*

means personal charm, soul, power, character, or will. When people of the python *ntoro* see a dead python, they sprinkle white clay on the reptile and bury it. They would never dream of killing a python. Everything that has been said of the python *ntoro* might be said of the *ntoro* of the leopard. This statement of Rattray modifies the idea that such python-*ntoro* beliefs are necessarily an offshoot from python worship, one of whose strongholds was in adjacent territory. This account for the Ashanti agrees well with information given by Westermann (pp. 304, 322, 327) concerning snake totems of the Kpelle of Liberia.

The Ibo-speaking people of southern Nigeria believe that when a snake advances toward a woman, it does so as a sign that she has conceived. There is a belief in the reincarnation of a Ci at this time. The Ci may be either the spirit of a dead or a living person. The medicine-man is called in to say exactly what this Ci happens to be. Taboos will then be imposed on the woman with regard to eating or contact with certain objects. Talbot speaks of a tree which was supposed to give fertility to women. A python was coiled round the tree at certain seasons of the year. To Ibo and Ijaw people the snake typifies masculinity. There is a belief common to all Hausa women that if they dream of a snake, they have conceived. The Bavili of the Lango Coast classify certain snakes under the name Bobo, which means the "bearing ones." Other snakes are grouped under the name Sasa, meaning the "procreating ones." In the same region, the Fan make figures of the snake out of clay. This is done at a time when boys are ready for initiation. The sexual side of these rites is strongly developed, and throughout the ceremonies the snake is the symbol of the male organ.

John Weeks gives a detailed account of the belief that a woman has conceived when she is visited by a snake. When a man of the Bangala people finds a snake called *mwaladi*, which has red marks on it, lying by his side when he wakes, he assumes that his wife has conceived. When a woman is sitting or lying down at the approach of this particular snake, she remains perfectly still. As the reptile passes by her, she sprinkles a little powdered camwood over it, and accepts its presence as a warning of her pregnancy. Among the Bangala a child born after a warning of this kind is not regarded with any special respect, nor is a special name given to it. Such an omen is, however, treated more seriously among the Bakongo. When a woman while pregnant dreams of running water, snakes, or water spirits, she believes that her child will be a

reincarnation of a water spirit. The spirits inhabit water, snakes live in crevices near to water, hence to dream of water is to dream of the water spirits themselves.

As soon as such a child is born, a cloth is tied round it, and no one is allowed to know the sex before the medicine-man has been called. The doctor is a specialist who is always called when there is anything unusual about the birth of a child. An all-night dance is held. All girls who are born after this dream omen are called Lombo, and all boys are named Etoko. They are supposed to possess the nature of snakes, and are regarded as reincarnations of the water spirits. To such children many presents are made, because they are credited with the power of distributing good or evil fortune. Snakes are not harmed in a house where these children live. Lombo and Etoko children are not allowed to kill snakes lest they should murder their own relatives. Snakes appear to realize their places of safety, for they are often found in the houses of Lombo and Etoko children. These water-spirit children must not be struck on the head because that is the most vulnerable part of their familiar reptile.

Hofmayr's account of the association of the crocodile with mothers and with child welfare leaves the impression that there may have been a transfer of snake beliefs to the crocodile. For women of the Shilluk, the crocodile has an important significance as the form under which the female Nikaia, female consort of the supreme being, Nykang, appears. Nikaia comes out of the water in the form of a child in order to bring good or bad luck to children. Women and children make offerings of food to the crocodiles at the river bank, and the flesh of this reptile is taboo to them. Stühlmann notes that in the northeast Congo the rubbing of python's fat on the ears and back of a woman aids delivery of her child. When the sun shines while the rain is falling, the Suahili say, "The wife of the great snake has brought forth."

Ideas of a soul, demon, or supernormal being inhabiting the body of a snake enter into every African concept of python worship, guardian rainbow snakes, or snake-human-fecundity beliefs. There are, however, a series of ideas in which reincarnation is the main thought, one might say in many instances, the only thought. It is not improbable that the reincarnation concept is logically fundamental to every form of African snake worship, snake cult, and snake belief.

A section of the Bambarra, known as Taroule, will not eat of the flesh of snakes because they consider that the serpents are their

ancestors whose malediction they fear. The serpent is credited by these people with healing properties. Tradition says that a mother when nursing her sick child saw a snake enter the door. The reptile coiled itself on the infant for a short time, then went away. From that time the health of the child was completely recovered. The Mossi say that human souls inhabit snakes and crocodiles. To slay these creatures is to kill an inhabitant of the village. No sacrifice is made to snakes, and they may be killed outside the village.

Talbot records the trial of a woman of Oban who was accused of sending her snake familiar to keep open a sore on her husband's leg. The accused admitted that she had a snake familiar, because in her country snakes and some other animals were possessed by women. The accused said, "I left my snake in the bush of my land when I was brought from my home. When I sleep and dream, I sometimes see my snake, but not very often. In the daytime I have not seen it since I was brought here many years ago."

Yoruba and Popo people believe that good men after death spend their time between reincarnations in different animals, or, more correctly, the spirits materialize into animals at will. The medicine-man is said to be able to change into a snake or other animal so that he can kill an enemy. The transformation is accomplished by covering the body with a medicine made from soaking roots in a pot. Very bad men take upon themselves serpent shape, so they can do evil to others. Instead of asking the priest to make sacrifice to a sacred python, an evil man may offer the gift in person. He is judged to be trying to persuade the python to kill his enemy. Bad men who have assumed snake form live under water, from which they emerge twice a year to seek victims. At the planting of farms, also at the new yam harvest, they come out and upset canoes. It is not permissible to recover a canoe which has been overturned by one of these snake men. Talbot writes, "As we glided down stream, our attention was caught by such derelicts, worth a hundred pounds, a colossal sum in the eyes of these poor natives." Ogugu is held by the Ikwerri to be one of the most important of female spirits, whose home is in a tree. If anyone has failed to keep a promise made to a juju, or swears on its name and does not fulfil the vow, Ogugu sends a snake to remind the delinquent of the promise. Big snakes may be sent to lie across the threshold of the house, to enter the bed at night, or to coil up by the head of the sleeper. The snake messenger will not leave until the promise has been fulfilled. The Elei Edda worship a male juju, Alose, who resides in very nimble

green snakes (*Dendraspis angusticeps*). If anyone kills this snake, a chief dies. This snake lives in a grove near the village; it comes out only when the priest sacrifices to it. The reptile is supposed to bite and kill any bad person.

Most of the Ibibio are of the opinion that the "bush soul" lives in a man's belly. Some social groups say that the power of sending out the soul is the prerogative of chiefs and influential members of a secret society. Usually the soul is sent out when the owner is asleep. Owners of bush souls are said to have submitted to a special initiation, carried out by an old man who makes medicine in a calabash. Power of sending out the soul may be inherited, or it may be bought. As a rule the owners of bush souls will not admit their power because this is generally put to an evil use. There are several animals which may be the recipients of these souls, but among the Eket snake affinities predominate. Talbot states that one of a company of natives suddenly sprang up, saying that his affinity, a python, was caught in a trap. The man struggled violently as if trying to free himself, meanwhile he begged that someone should go to set free the python. When the search party returned saying that they had set the reptile at liberty, the man declared, "Now I am free once more, my soul has come back to me." There are two kinds of Asaba, or snake souls, one hereditary and totemistic, the other to be acquired by magical rites. Large sums are paid to the juju man to perform the ceremony which will enable a man to send his soul into a python. The python is specially valued as a bush soul because it guards the sacred waters and groves along with the treasures buried there. Great care has to be exercised in the choice of a magician who has to introduce the python into a man. An evil magician will introduce the female python instead of the male. This is undesirable as the female will lay eggs in the man, then everyone will know that he has a bush soul. The novice is made to swallow a pad and a thread seven feet long; from these the snake is metamorphosed inside him. Snake souls may be recognized by having a peeling skin, a long neck and jaw, and fetid breath.

The Ibo people of Nigeria say that a child of three years who cannot walk has come from a stream. At Ubulubu the people take the child to a stream along with an offering of yams on a platter. There the child changes into a python and goes back into the stream whence it came. In Asaba a ceremony is performed in the house. If this rite results in the transformation of the child into a snake, the reptile is killed. Some people seriously assured N. W. Thomas

that they had seen the transformation. Meek states that before the introduction of Islam among the early people of the Hausa states, various snakes were totem animals, especially among the people of Katsina and Daura. Among the Kamuku and Gwari, snake beliefs still prevail. Snakes are allowed to visit houses, and it is said that anyone who killed one of these visitors would die. Tremearne thinks that the various forms of respect for, and beliefs relating to snakes in Hausaland are a result of the well-defined snake worship of West Africa. Many Hausa clans claim the snake as their totem. A special offering of eggs and milk is made, and sometimes the snake is the emblem of the evil eye. "Whether it is the serpent itself or the spirit that is in it, which is worshiped, I cannot say. I feel inclined to believe that both ideas exist in the minds of the Hausa, for whereas Mai-Ja-Chikki is the snake, Dan Musa is said by some to be the spirit in the snake."

There is evidence to show that some of the Hausa make offerings of eggs and milk to their snake totems. The gift has to be placed near to an ant hill or a hollow tree, and incense should be burned at the same time. "If the totem likes you, it will come out, and you can then make your supplication." Incense attracts the Bori, or demons; the association of these with snakes has been described already. In Daura the totem snake is not killed, but if unfaithful to its promises, the people will bring a larger snake to drive it away. In Daura there are proceedings which approximate to a snake cult. Every year a black bull or a he-goat is killed. The blood forms an offering to the snake, while the meat is consumed by those present; no meat may be taken home. If the head of a family cannot be there, his son, wife, or daughter, will eat his share so that he will not lose the Baraka, or blessing. A priestly king or priestess dances round with the skin of the sacrificed animal.

The snake-child belief of the Ibo of Southern Nigeria has a parallel among the Kagoro of Northern Nigeria. If a child is mentally deficient or paralyzed, a period of four years is allowed for recovery. If at the end of that time there is no sign of recovery, the people say, "It is a snake, not a human being." They throw the child into a river, and are decided in their verdict that, "if you hide by the water, you will see the child lengthen into a snake."

The Kouyou tribe of French Equatorial Africa have great respect for the viper. This snake is a chief and the parent of chiefs. The reptile goes into the wood to kill animals which are intended as food for the chief. There is a proverb meaning, "Breathed the

serpent—gave the kid to the chief." This snake is the principal symbol of a widely-spread secret society. In connection with this there are initiation rites at which a principal performer dresses as a snake in order to execute an elaborate series of dances. The Azande say the souls of dead chiefs enter serpents and other animals (Poupon).

Reverence for snakes has been a factor of South African culture for a long period whose duration is unknown. The antiquity of mural paintings in caves is uncertain. Hall has enumerated the serpents which figure in these wall paintings. Some of the serpents have humps along their backs, others have horns, while one shows fins, or wings. Three of the paintings show men on the backs of the snakes. "It is clear that they are variations of one particular creature." Some of the myths relating to monster snakes of South Africa will be given; probably the paintings were made to give expression to the beliefs embodied in these stories. When the zoological evidence is discussed it will be seen that there is a rational foundation for the artist's representation of horns and humps along the back.

The Batlaru, a branch of the Bechuana, are men of the python; that is to say, they take the python as their totem, but the totemism does not appear to be of a flourishing kind. An early observer, Casalis (1859), says that the Kafirs of South Africa have a general belief that the spirits of their ancestors appear to them in the form of serpents. Callaway states that among the Zulu it is especially the harmless green and brown snakes, which come fearlessly into houses, that are considered to be *amatongo* or ancestors. These have to be treated respectfully, hence offerings of food are made to them. There are two ways in which the reincarnated man can be recognized. If the creature is one-eyed or has a scar it is identified as the *itongo* of a man who was thus marked in life. But if the man had no distinguishing blemish, he is supposed to reveal his identity in dreams. In 1906 Hartland saw a Zulu who had killed a brilliant green Imamba snake which he wore around his body. The observer states this as a sign of the decadence of belief and custom, saying, "The Kafir dared not have done this in the old days." Kidd says (1906), that the Kafirs will kill these snakes when the reptiles are away from the kraal; these absentees cannot be ancestral snakes because the spirits of ancestors do not wander. The evidence showed that sacred pythons which wandered had to be brought back to the temple with reverence. Generally speaking, however, sacred snakes are immune only when they are in the sacred grove or within the

hut they have visited. Again, when a snake attacks a man, he is justified in killing it; for no ancestor would attack his own people, especially if they were prepared to feed him. Kidd gives one of the best accounts of the Zulu attitude toward these visiting snakes. If a stranger picks up a stick to attack the snake, the people say, "Hold! Do you not know that this is our ancestor? Would you kill our ancestor?" When the snake arrives, there is great joy in the kraal; the people say, "Our ancestor has come to visit us." Sometimes an ox is killed in honor, and the snake is carefully watched. If it moves quickly, the people say, "It is so-and-so, who used to walk very fast." Identification is easier than one might imagine, for only the chief ancestor would return.

Several investigators have tried to satisfy themselves with regard to the Zulu idea of the nature of the reincarnation. Kidd was informed that the backbone of the deceased man turned into a snake; but some people said that the entrails became the snake. Children turn into harmless snakes which are used by the diviners. The Matabele, according to Nielson, believe that when a man dies, his *idhlozi*, or self, arises from the grave and assumes the form of one of three common kinds of snake. The Matabele say that an ancestor usually returns with evil intent; hence he is held responsible for sickness and disease. The natives say they do not know whether the *idhlozi* lives in a man when he is alive. Some say that the body itself changes into the snake. Others have the idea that snakes are merely messengers. Bryant (1917) was told that the ancestor does not enter any existing snake, but simply materializes into one. A snake of bright green color with black spottings on the upper part of the body, if fully grown, is said to be the spirit of a man of importance, the headman of a kraal, or even a chief. When young and small, this snake is thought to contain the spirit of a child or of an unimportant man. A short brown snake which secretes itself in dark corners of the hut is regarded as the spirit of a female, though an elderly woman may appear as a large brown snake. "All snakes and lizards which are regarded as spirits are never molested, or were not until the Zulu came under other influence." The importance of these beliefs is reflected in wood carvings of the Zulu (Plate VIII, Figs. 2–4).

Proceeding northward, it may be shown that this idea of visits from a reincarnated ancestor, in the guise of a snake, extends from the Cape to the Horn of Africa. The dead of the Yao and Anyanja may manifest themselves in the form of animals, but this does not so

often happen as among the Zulu, who are expecting the visit. The Yao idea agrees with that of the Matabele; both peoples think that the ancestor returns with evil intent. The Yao say that if a dead man wants to frighten his wife, he may persist in coming as a serpent. The only remedy is to kill the serpent. The accidental killing of a serpent demands an apology.

Junod has collected information relating to the snake beliefs of the BaThonga. Mapfindlen was walking along the path of a forest when he trod on a snake and hurt it. During the night the gods came to him, and he began to scratch himself all over the body. He saw the gods against the wall in the form of snakes, and they said, "Thou hast hurt us." No one else saw them. His mother tried to pacify him, but he kept saying, "The gods are trying to kill me because I trod on them." The diviner threw the bones and said, "This comes from your household gods; has he not trodden on a snake?" Sacrifice was made to the gods, but the boy died. Further information respecting the reincarnation of gods is shown in the Tonga belief that gods reveal themselves in little bluish green snakes which live in the thatch. When disease breaks out, the diviner generally comes to the conclusion that someone has harmed one of these little snakes. The gods can also appear in the form of the large green puff-adder. A story of the Bondei illustrates the idea of reincarnation in a snake. A man who wished to free a girl from her snake husband hid in the hut under a pot. When the snake returned, it received a slashing blow. The reptile shouted, "Who is putting water on my body? I am a great chief." The Wanyamwezi believe in a white serpent of a non-venomous kind which may be seen at the grave or the hut of their parents. This snake, which is a metamorphosis of the deceased parent, will give a warning of impending misfortune. In his "Travels and Missionary Labours," Krapf writes that in lower East Africa there is a belief that the souls of children are reincarnated in snakes. The author thinks that this belief was derived from the Hindus. The Konde say that a snake can dwell in the body of a man who then possesses certain powers. When he is asleep, he can send out his soul in the form of a snake; but if the animal is killed, he will not wake again. This idea is almost the same as the snake-soul concept of West Africa.

The *fanany* snake or worm of Madagascar, described by Sibree and discussed by Van Gennep, is rightly classed with the ideas of reincarnation so prevalent through the whole of East Africa. Sibree mentions a Madagascar legend of the *fanany* with seven heads. It

will be possible to show later that ideas of a snake with two or more heads rest upon a rational zoological basis. There are said to be certain people whose intestines turn into *fanany*, or the corpse as a whole may turn in this way. Reference is made to a custom of the southern part of the island where people take the intestines of their dead relatives and place them in a pool so that they may turn into *fanany*. People who turn into *fanany* are of noble descent. When this creature comes to a village, the people say, "Art thou such a one?" If the correct name is mentioned, the *fanany* nods its head; then an ox is killed. The *fanany* is similar in appearance to the water snake. Tambahoaka and other people of Arab origin believe that liquids produced by decay of the body of a chief engender a large sea-serpent which they call *fanany*. Van Gennep discusses this *fanany* reincarnation and suggests that the belief may, among the Betsileo, be a decadent or an incipient totemism. Hartland thinks it unlikely that totemism could be in its early stages among a people so advanced as the Betsileo. Against this contention there is the fact that totemic ideas may originate quickly and spontaneously, for example, in modern military organization. The basic idea of totemism is of a simple and fundamental kind implying merely a sentimental relationship between a person and an object.

R. Linton reports on the Fanany Cult of Madagascar:

"There is a belief that the souls of the dead are sometimes reincarnated in snakes which seems to be rather widespread in Madagascar. Throughout most of its range the idea is vague and seems to have no particular significance. The Bara lack it altogether and kill snakes on sight. Other tribes usually do not kill snakes, but assign various reasons for it. Where the belief in snake reincarnation does occur, it is usually linked with other and contradictory ideas of the fate of the soul. It assumes the importance of a cult only among the Betsileo, who occupy the southern end of the Central Plateau. Here the following belief is found: Members of the royal caste (called the 'Hova' caste, but quite distinct from the Hova tribe, who live to the north of the Betsileo) carry in their bodies during life a small insect or larva, described as being about as large as the first joint of a man's finger. At death the body is squeezed, kneaded, and fastened upright to the end post of a house. The soles of the feet are slit, and the matter which runs out is collected in jars placed below. The process is continued until an insect, believed to be this larva, appears in the matter in the jars. Although the whole results in a sort of mummification, the underlying idea is to get the larva safely

out of the body before it is buried with ceremony, while the matter, with the insect, is taken to a sacred wood or a sacred lake and poured out, or simply left there. The larva is supposed to grow into a snake called *fanany*. This is a real animal, a large handsome constricting snake, probably a boa. Its skin is unusually smooth and shiny with mottlings of brown on a light ground. The natives believe that it has seven tongues. When a Betsileo man, irrespective of rank, encounters a *fanany*, he brings a fine lamba of the type called Arindrano (having a dark center with white lines) or the type called Lamba Be (having a dark blue ground with wide stripes of mixed colors, the most valued of all lambas; the lamba is a shawl or blanket), and puts it on the ground near the snake. He then repeats the names of all the dead Hova (members of the royal clan) he knows, asking, 'Fanany are you so-and-so, are you so-and-so, etc.' When the name of the Hova whose soul occupies the *fanany* is called, the snake crawls upon the lamba and coils there. The person then lifts the lamba carefully by the four corners, with the snake inside, and carries it to a sacred place. There the family assembles, caresses the snake, and brings it a chicken as food. After it has eaten, it is released. It is believed that a snake of this species cannot be killed. Even if it is cut in two, the halves will reunite. If it is ill-treated in any way, the offender will suffer bad luck or injury.

"This cult in slightly modified form has been introduced among the Tanala, who live just to the east of the Betsileo, within the last fifty years. The following story is told by them, and seems to be true in its essentials. The Tanala had no kings until one of their clan chiefs submitted to the Imerina tribe (commonly called Hova), and was accorded royal rank by them on condition that he be their vassal. At the death of this king, a few days after his burial, a *fanany* snake came into the dead man's house. It was put out, but returned a second time. The Tanala were puzzled and frightened but their own medicine-men (*ombiasy*) could not explain the incident. Finally a Betsileo who had settled in their capital said, 'If this were in my country, we would know that the soul of the dead king was in this snake. Perhaps now that you have kings their souls enter *fanany* as those of our own kings do.' He performed the regular Betsileo ceremony, and at the name of the recently deceased king the snake came on the lamba. Since then the *fanany* incarnation has been believed in by the Tanala. However, when the soul occupying a *fanany* has been identified, they sacrifice an ox to it instead of a

chicken, and then carry it to a secluded place and set it free, saying, 'We have treated you well and made a sacrifice for you. Please do not come back to trouble us any more.' It is believed that the snake then goes away and lives in the woods, finally growing to a great size. When it becomes old and huge, it goes down to the ocean on the east, plunges in, and disappears."

It may be noted that true boas, related to the American *constrictor*, replace the pythons of Africa in Madagascar.

At the burial of a paramount chief of the Awemba and other people of the plateau of northern Rhodesia a long hollow bamboo is inserted in the right ear of the corpse in such a way that the upright tube projects above the surface of the grave. This egress from the grave is carefully watched for several days. At the end of the second day a spider emerges from the tube, to be followed a little later by a python, and at a further interval by a young lion. When the python appears, it is fed and sent away with a warning against molesting human beings (Gouldsbury and Sheane, p. 188).

There is no definite statement that the python is the escaping soul or a reincarnation of the chief, but such a belief seems to be implied. If this inference is correct, the case is similar not only to that of Dr. Linton's report, but it bears in addition a similarity to the evidence collated from Roscoe's books on the tribes of the Great Lakes region.

The Wakerewe have in their society people known as Balogi, workers of black magic, who can change a person into a snake or other animal. There is an intelligent cooperation between the Balogi and the person so changed. The Balogi sends the animal on an errand of mischief against an enemy; but, before doing so, he shows the animal something belonging to the intended victim. Perhaps an article of clothing is indicated, or tracks of the quarry are pointed out in the sand. This human reptile will capture an enemy or will commit robbery, but he takes care of the human life within him. The Wahehe snake catchers handle the reptiles freely. The men say they have a medicine which cures snake-bite in twenty-four hours. Death does occur; but in such cases the snake could not have been a real snake; it must have been a wizard.

The Masai, WaKikuyu, Nandi, Kavirondo, Suk, and other people of Northeast Africa have beliefs in visits of snakes which contain the souls of dead ancestors. The Masai say that the soul of a poor person dies with him, but the soul of a rich man or a medicine-man goes into a snake as soon as the body rots. The snake visits the

kraal to look after the children. The Masai do not kill their sacred snakes; on the contrary, an offering of milk is made to them. There is a black snake which is sacred to the Aiser clan whose members prevent anyone from injuring the creature. One family has its own snakes which are of the guardian type. A member of this family who is being defeated in a fight shouts, "The avengers of my mother's house come out." If his opponent does not run away, the snakes will come out and bite him. Many other clans and families have sacred snakes which are peculiar to them. Hollis says that the Bari, Dinka, and Latuka follow similar customs. Medicine-men of the Masai carry snakes in their bags. Merker refers to a belief that dead husbands return as snakes to which an offering of milk is made.

The Nandi kill any snake which enters the hut, but the body is not thrown out of the door; a special hole has to be made for egress. If the snake goes to the bed of a woman, it may not be killed. Such a snake is thought to be a reincarnated ancestor who has come to tell the woman that her next child will be born safely. This instance might have been classed with those relating to childbirth and human fecundity in general. The snake is a totem animal of the Lumbwa.

Hobley says that the Kadimu people, who live near the mouth of the river Nzoia, believe that they are descended from the python to whom sacrifices are made on a hillside. Some of the Wanyamwezi clans look upon certain snakes as sacred, and Hobley thinks that the belief in snake ancestors is present in this tribe. It is certain that many Wanyamwezi consider the killing of a snake a deadly sin. The totems of the Karomojo to the north of Mount Elgon include snakes. These people think that eating the totem animal would result in death. Although in certain cases the Kavirondo make offerings to snakes, their respect does not amount to worship, and they do not hesitate to kill snakes. When a cobra is seen near a house, the inmates consult the priest, who prescribes an offering of a sheep or a cow. This is done to appease the spirit which is supposed to inhabit the reptile.

The WaKikuyu regard the snake and some other animals as having a mysterious connection with spirits. When a snake enters the village, the people offer it milk and fat. These snakes are not exactly the spirits themselves, but their messengers, who give warnings of future evils and come to indicate that an offering to the spirits will be opportune. Hobley gives more explicit information on this point. If a snake, called Nyamuyathi by the WaKikuyu, enters a hut, it is necessary to pour some milk or fat on the floor for the reptile to

consume. The snake may leave after this offering has been made, then all is satisfactory; but if the creature remains, a sacrifice of a sheep is necessary. The melted fat is poured out of the hut with the request, "We offer you some fat to drink, we beg of you to leave us." The people think that a Ngoma or spirit has come in the guise of a snake, and on no account must the creature be killed. After a sacrifice of this kind the snake generally goes, but the disappearance is mysterious; nobody sees the exit. If the snake did stay in the hut after the sacrifice, the woman who owned the hut, also her children, would be *thahu;* that is, they would be under the curse of the ancestral spirits.

Kollman says that the Wakerewe consider that snakes are to a certain extent sacred. They will not kill the gigantic snakes that frequently visit them. Death by snake-bite is considered fortunate. The Suk believe that at death a man's spirit passes into a snake. If the spirit is very hungry, it enters the hut in snake form. Milk is poured on to the tracks, while a little meat and tobacco are offered. The snake may be killed if it is away from a house, but this involves killing an ancestor. Should a snake be seen in such a way that its head is invisible, the custom is to place a handful of grass on the animal while passing by. If the snake darts up its head while this is being done, it may be killed with impunity. In this case the killing of the ancestor is not a culpable act. In Patiko, northeast of Victoria Nyanza, sacrifices are offered to a demon in the form of a snake which inhabits a hole. The respect is of a decadent kind, because the informant admitted that those who offer the food subsequently eat it.

A survey of these data shows that there are several clear divisions and subdivisions. These are:

Reincarnations:

(1) Of gods and demons.
(2) Of chiefs.
(3) Of commoners, including women and children.

Transformations:

(1) The living man can turn himself into a snake.
(2) The living man can send his soul into a snake.
(3) A man can command a snake to do his will.
(4) A man can turn another person into a snake which will obey his commands.

The only clear geographical distribution is that of the reincarnated ancestor concept. This idea is of continuous occurrence from

the Cape to Lake Rudolph, including the southern part of Madagascar. Ideas of transformation are spread over the whole continent, and the informants themselves are not always clear as to the nature of the relationship between a man and a snake. The bush-soul idea of West Africa is the most definite of its kind. Here there was noted a special ceremony for introducing the snake into the person. From this definite concept and procedure beliefs are graded into the vaguest of ideas concerning a snake-familiar, over which the owner has a mysterious power.

III. THE RAINBOW SNAKE

Under this heading it is convenient to classify a number of beliefs and folklore stories relating to snake monsters. The association of ideas, which is a natural and logical one, includes guardianship of water, control of rain, and in some instances the comparison, or even identification of the snake with the rainbow. Snakes are swimmers, they thrive in a rainy season, hibernation ceases when the rains begin, many snakes have colors as bright as those of the rainbow. Thus the rainbow snake, water guardian, concept is not difficult to understand. The problem of showing a relationship between rainbow snake concepts and python worship is, however, one of great difficulty. Perhaps it is best dealt with in a final summary dealing with the possible interrelationship of python worship with all other forms of African snake beliefs.

Among the beliefs associated with python worship in Dahomey was noted a superstition to the effect that the python appeared in terrifying form to some of the most beautiful girls. These were then obliged to enter the service of the python temple. The people (Saracolais) of Senegambia have a legend to the effect that the prosperity of their country at one time depended on the sacrifice of the most beautiful and accomplished girl to a snake monster. On one occasion the victim had been led to the water hole where the serpent was wont to appear, for it was his custom to drag the sacrifice under the water. At the critical moment, when the sad fate of the girl seemed inevitable, a youth dashed up on horseback and claimed the girl for himself, after cutting the snake monster in two. The ideas of the snake guarding water, giving general prosperity, and demanding a girl, are to be found in the beliefs underlying the python worship of Dahomey. Possibly the story is a survival of a more definite cycle of ideas associated with a serpent cult of Senegambia. The carved panel (Plate VIII, Fig. 1) represents the rainbow snake with its tail in its mouth. The carving was probably copied from decorations on old palace walls described by Waterlot.

A Nigerian folklore story, told by Tremearne, refers to a monster snake which twisted itself round the trunk of a tree and so imprisoned several girls who were in the high branches. The snake said that he was looking for a popular girl named Telale. He wished to possess her so that he himself might be popular. One by one the girls descended, saying, "I am not Telale; give me room to pass." At last

only Telale remained up the tree, and her cruel fate seemed inevitable. She was, however, saved by a dove who helped her to outwit the snake.

The Esa of southern Nigeria believe that their ancestors send rain which assures crops for the year. The rainbow is the master of the rain, which ceases on its arrival. When a rainbow appears, the Kalabari say that a mighty python is seeking a home. The rainbow is the great snake of the heaven which cuts a way through the forest and builds a house. Oshumare is the rainbow god of the Slave Coast. He takes the form of a great snake which comes from the underworld, above the edge of the earth, to drink water from the sky. The name is a compound of *shu* ("to gather in dark clouds") and *mare* (of uncertain meaning). A variety of the python, called by the Yorubas *ere*, is the messenger of the rainbow god, and is sacred to him. Among the Ewe-speaking tribes of the Slave Coast certain snakes are treated as messengers of the rainbow god, and great respect is shown to them. Every python has to be treated with respect.

Tremearne's rainbow snake stories, which he collected in northern Nigeria, raise the question of a possible Semitic source for these widely distributed rainbow monster myths. This hypothesis needs consideration later, along with the theory that such stories are survivals of a decadent python worship. Gajjimare is a demon of physical disabilities, who, among other things, causes paralysis of the back. This fiend takes the form of a snake of double gender which lives in wells. When the reptile comes out, it passes over the sky and enters an ant hill. The rainbow drinks up the rain, so preventing any more from falling. If water is placed in a house for the Gajjimare demon, it will be satisfied, otherwise it will steal money. This demon (*jinn*) is distinctly a water spirit which is recognized as far north as Tunis. C. K. Meek says that the Angas of Hausaland reverence snakes, representations of which have been dug up on the Bauchi plateau. The Ba-Mbala call the rainbow Kongol-Meme ("water snake") according to Torday and Joyce. Overberg states that the Mayombe recognize a serpent Ndok which lives in the forest and eats spirits.

The Bavili of Lango have an intricate series of beliefs in connection with snakes as guardians of water. Xama is said to be red in color, but it is seldom seen except as part of a rainbow. It is of enormous size and lives in the woods. When anyone kills this snake, rain will not fall. There is a belief that one kind of snake can turn into another. Xama Luayi is the beneficent rainbow which drives away Xama Ngonzola, a snake responsible for causing floods. Some

people of the Bavili who gave this evidence raised their hands to their breasts, then lifting them on high let them drop to their sides, so making the sign of the rainbow. One man said, "Our father, the exploder of clouds, may he not hear." Mbumba is a great snake found in wells. Women will abandon the fish and water they have taken on finding this snake in the well. The name Mbumba means "secret moisture."

Callaway has made a collection of Zulu myths which include references to a rainbow snake that guards wells. The creature can be a menace to human life. Quite recently Neville Jones stated that among the people of the Motopo Hills the snake occupies a distinct position as a creature of reverence. The natives who have this superstitious regard for the snake are the Abenyobi, a branch of the Makalanga of southern Matabeleland. A native, pointing to a rock shelter, said that there lived there a snake to which the people brought presents of food. The snake is regarded as a guardian of the hidden granaries of the hills. Each family has its own guardian snake for the granary, but the animal recognizes only the head of the family, who alone is safe in visiting the store. The Basuto have a story of a girl who was wedded to a snake which she burnt to death, whereupon her true and accepted lover was restored to her.

A monster python of the forest figures in several folklore tales of the BaThonga of Portuguese East Africa. Two brothers went to the forest where one killed and ate a small python, whereupon he became very ill. The parents sent messengers to the big snake of the forest, but these fled in terror when the snake poked out his head. At last a very small child persuaded the big snake to come to the hut. There he healed the sick boy, and was conducted back to the forest by the infant who had persuaded him to attend. There seems to be in this story an idea of a snake guardian of the forest. More in harmony with the general run of rainbow snake stories is the Tonga legend of a snake monster which lives in ponds and cries out when rain is falling. A man who was returning home through the forest saw this snake. The reptile was so large that it closed all the breaks through the trees; consequently the man died after three days of aimless wandering. In the Drakenberg Mountains there is said to be a snake which inhabits dark, woody ravines. Any intruder is attacked by the snake, which hangs from a tree and bites him in the head.

Krapf (1860) relates that a Wanika chief told him of a great serpent which is seen out at sea, reaching from the sea to the sky after heavy rain. This is probably a version of the rainbow snake myth.

At the ruins of Gede, near Malindi, there is supposed to be an enormous guardian snake, which would kill any person attempting to remove anything. People go to this spot to make vows and to pray for rain. Some of these supplicants told Werner that they heard voices chanting, "La Illah il Allah." Presently a long, slender, black and white, spotted snake appeared and quickly vanished among the stones.

Near to a locality on Lake Victoria Nyanza where there is definite python worship are the rivers Muzini and Kafu, which are said to be the abode of sacred snakes. These are believed to be responsible for sudden rises in the rivers. At Muzini there is a medicine-man in charge of the river and the sacred snakes, to which he makes offerings when people wish to cross. Building a bridge was thought to be useless for the snakes would break it down. It is necessary therefore, after making sacrifices, to build papyrus rafts on which the passengers can be carried across. At one time the king sent periodical offerings of black cows, which the medicine-man presented to the snakes with the request that they would not kill human beings. Drowning persons could be saved only by the medicine-man. According to a popular notion, a snake will take a person to the bottom of the river, where he will eat out the heart and tongue, then return the body. In conjunction with these beliefs there are several taboos. No man who has spent the previous night with a woman is allowed to cross the river. A menstruating woman is forbidden to cross. There is a belief that any person with a deformation of the generative organs will be drowned in attempting to cross.

In adjacent hills there were said to be snakes guarding the wells. Human beings might approach only after making offerings to these guardian snakes. These snake guardians of the wells are thought to be of a bright green color broken by orange-gold tints. As this is a region of python worship, it is not surprising to hear of a general respect for the python, apart from any definite cult. Roscoe states that a few men kept pythons in their houses, feeding them on milk, or an occasional fowl or goat. The people stated that these pythons did not kill animals in the village of their adoption, but went farther afield for their prey. The Bagesu say that there is a snake living in springs where he will attack anyone who goes to draw water. The priest who is in charge of the spring accompanies the rain-maker to the well, where they construct a large trough. This is filled with beer, and the priest takes up a position close at hand. When the

snake rushes out, the man is saved because the creature is attracted by the beer which eventually makes it drunk. The priest and the rain-maker then break its fangs, so rendering it harmless. Pots are filled at the sacred well and left there. The water thus drawn and left standing will attract rain, which will continue to fall until stopped by the priest. When there has been sufficient rainfall, the priest and the rain-maker again visit the spring on the hill. Once more the snake is tempted to indulge too freely in beer. Then the water pots are overturned, and the rain ceases. The sun begins to shine to ripen the harvest.

Routledge describes Akikuyu beliefs relating to a rainbow monster which lives in lakes and waterfalls. At night it comes out to eat goats and cattle, but its tail always remains in the water. Some Masai warriors made their spears hot, then proceeded to attack the rainbow, which is identified with the snake guardian of the water. According to a legend, these warriors speared the rainbow in the neck, which is the only vulnerable part, whereupon it fell dead. Routledge describes certain Akikuyu festivals which seem to be associated with the rainy season, the rainbow, and a snake monster. He describes the way in which each district makes a contribution to the snake of the river. It is claimed that the ceremony of feeding the snake is part of an initiation rite into a secret society. Horns are blown when first the snake begins to feed, then again at the end of his meal. Beer is part of the offering. This intoxicates the snake so that a specially appointed man can pull out hairs from the reptile; these are used as charms. Hobley, whose contact with East Africa has been more prolonged and more intimate than that of Routledge, does not agree that this ceremony is connected with a secret society. He agrees, however, that in former days there was a ceremony at which the elders used to send two envoys to a certain stream in Kenya. This water was said to be inhabited by a mysterious creature, more crocodile than snake.

Apart from a few miscellaneous beliefs and references to the cure of snake-bites, the literature dealing with Abyssinia does not assist the inquiry. Hartland has, however, a story of a snake monster which guarded a beautiful girl, the daughter of a headman in a Somali town. A certain traveler who wished to visit the girl received advice from a woman who stopped him on the way. Giving him a stick, she commanded him to place it on the snake's head, whereupon the reptile would die. The plan worked so well that the traveler was able to enter the house and marry the girl.

The belief in a rainbow snake monster is reported by Larken (1926), from the Zande of the northeast Belgian Congo. Ngambue is a big snake. Its skin is covered with a white powdery substance, and it possesses a beard. The creature, which has a poisonous bite, may live in any waters. The well at Yambio is said to harbor such a snake. The rainbow *wangu* lives in bogs, or in cracks and holes near to streams. It is like a snake. The creature comes out in the rain because it wants to wash, but no tracks of it are ever found. People who see one of these snakes fly in terror. Some years ago the guard at Yambio turned out without orders and fired several rounds at a rainbow snake which seemed to be issuing from a large ant heap in the vicinity. They said that if it had reached them, they would all have been dead men. A Zande gun-bearer was glad to be allowed to go ahead of the party to escape a rainbow which was moving toward him. Prismatic colors falling on a man cause great fear.

The main ideas of the foregoing concepts are related to the one basic thought of the snake as a guardian of water, woods, ruins, or grain. Of these, the connection of the snake with conservation of water is the most numerous of the beliefs. Here there is a resemblance, fortuitous or otherwise, to the beliefs centering round python worship in southern Nigeria and Uganda. In Uganda the python was the guardian of the river and the fish contained therein. The same may be said of the sacred pythons described in connection with python worship in southern Nigeria. In python worship and ideas of rainbow snakes there is the same underlying concept of the guardianship of something which is sacred. In addition to this generic unity of ideas there is often the recognition of a supernormal presence in the python or rainbow monster. There is likewise in relation to both pythons and rainbow snakes a system of sacrifice and propitiation, which requires the intervention of a rain-maker and a priest. Instances of regard for snake monsters are not such definite acts of worship as are the rites connected with the python, but they do frequently attain the status of cults.

In arranging snake worship, cults, and beliefs, in a descending order of social values and importance, the inquiry arrives at the subject of immunity and snake-medicines.

IV. IMMUNITY AND SNAKE-MEDICINES

Somewhat in keeping with the ideas of snake souls, snake messengers, and transformations generally, is the concept of immunity from snakes. This is an idea which is not to be confused with the performances of snake charmers in Egypt and Morocco. The belief in immunity from snake-bite is more closely allied to the idea of a human soul being in communion with the snake.

Major G. d'Arcy Anderson, a District Commissioner of West Africa, says that in the Konno country there is a secret society with the snake as its emblem. A member of this society volunteered to show his power, so spent a night in collecting snakes. He returned in the morning with two cobras, one seven and the other nine feet long, a python twelve feet long and a horned viper four feet long; there were also four other snakes. He handled these quite carelessly, although their fangs had not been extracted. The cobra and the viper killed fowls by their poison.

The fat of snakes is used by the Ekoi in making medicines. In northern Nigeria it is said that twin sons cannot be bitten by snakes. The Hausa say that a man will be immune from snake-bite if he rubs his legs with a certain pulverized creeper. Talbot says that the Ekoi leave the body of a poisonous snake across the path where it has been killed. If this is done, snake-bite is avoided until a new moon shines in the sky. There is evidence that there are Ekoi beliefs in "bad parts" of the python. The gall, when used in a certain way, is capable of producing dire results; the gall of the leopard has similar qualities, and among the Ovimbundu the gall of the crane is said to be poisonous. There can be no doubt that a number of beliefs relating to the magical properties of snakes have to be classed with a large group of similar concepts; they have no special connection with, or derivation from, snake cults and python worship.

A valuable snake-medicine used in northern Nigeria has a somewhat complicated method of preparation. The purpose of the medicine is to render the owner invulnerable and capable of avoiding pursuit from an enemy. The charm given by Tremearne implies that the worker of magic must cut off the head of a black snake and in it plant a seed of the ramma plant. "Bury the head in a grave which must be seven days old. Pour water on it for three consecutive nights, when the shoots of the ramma plant will appear. Seven

days after, take some fat from the body of the snake and at midnight proceed to the grave. Strip quite naked, lie down, and rub some snake's fat on the plant. An Aljan in the form of a man with a big head will appear. He will try to frighten you, but you must keep on with the charm. You will also see another man in the form of a big snake. When the plant has grown to a height of three or four feet, go again to the grave at midnight and strip naked. Pull up the ramma plant, adjust it as a girdle and go home. Afterwards, if anyone attempts to strike you, pull off your girdle and wave it in your hand. It will then become a snake that will bite your enemy."

In the region of Stanley Falls people have been observed to wear the fangs of a snake as a charm against snake-bite. The Herero are acquainted with many snakes of which the Ondara is the largest and most poisonous; even the breath, and the track along which the reptile has crawled are regarded with awe. Through some strange idea of homeopathy, parts of this serpent are credited with healing virtues. A sick man is rubbed with mucus from the track of the snake. The heads and skins of the young snakes are pulverized with leaves, boiled, and kept in stock as a healing salve. Fritsch writes that in southwest Africa doctors who cure snake-bite form a special professional class, just as do the primitive medicine-men who specialize in the cure of dysentery or fever. The doctor has a series of charms and spells for rendering the bites of poisonous snakes harmless. Novices have to be trained until they are immune even from the bite of the puff-adder. An infusion is made from many fragments including the stomach of a cow. This concoction is made up into little pouches which are worn round the neck.

Schultze observes that the Hottentots treat snake-bite in a somewhat rational manner. In the first place they suck the wound through the ordinary cupping horn, after the punctures made by the fangs have been deeply incised. The wound is then filled with charcoal mixed with powder from the dried body of a lizard. A Hottentot kills the snake which has bitten him. He cuts out the poison glands and drinks water containing a few drops of the poison. The remainder of the poison he dries and keeps for future use. The Bushmen make poison for their arrows from the venom of snakes. They are said to have an antidote against this poison. In northern Rhodesia the medicine-man fastens a ligature between the puncture and the heart. Following this rational procedure, he cuts the wound, sucks it, then applies leaves. Some of the Wabusa wear amulets of snake skin to avoid being bitten by a certain kind of water-snake. Parts of the

snake are mixed with fragments from other animals to form a paste. At the initiation of boys into tribal life this paste is rubbed into cuts which are made below the second joint of the right thumb, on the right shoulder, and above the right eye. This procedure is said to give success in shooting.

Smith and Dale have considered the question of immunity and cure among the Ila-speaking people of northern Rhodesia. Medicine-men say that snakes will run away from a person who has bathed in the fumes of the Mompelempempe bush, whose root is also used in compounding medicines which are rubbed into the wound. The wound may also be rubbed with a beaded charm which is worn round the neck. The writers (Smith and Dale) proved from personal experience that parts of the Kabwenge bush, soaked in warm water, can give great relief from the poison which the spitting cobra squirts into the eyes of its victim.

A man named Munyuni was famous for his cures of snake-bite. He kept snakes in his hut quite fearlessly. He pulled a snake out of a hole, extracted its fangs, and carried it in a bag; when he stroked its head, it became quiet. The process of becoming immune is a secret which is handed down from father to son. Munyuni stated that he had doctored his own children, just as his father had doctored him. The procedure is to take the fangs, the tip of the tail, and some roots, then pound them together. This mixture is rubbed into cuts which are made between the thumbs and the first fingers, also between the great toes and the next. The operation has to be repeated at intervals of several years. Sometimes a boy is immunized by standing in the smoke of a fire on which the heads of snakes are burning.

In his book "Travels in Zanzibar and Pemba" (1898), Fitzgerald remarks that his servant appeared to possess some special power over snakes. This control was said to be the effect of a charm. One day this man came to camp dragging a large puff-adder with a rope around its neck. In spite of the fact that the snake was unharmed the man took off the rope and lifted the snake into a box. On one occasion when Fitzgerald told his man to skin a snake, the skin was brought without the head. The servant explained that the head had been buried so that the wizards could not use it for black magic. They would make "bad medicine" out of the head.

Loveridge, who recently (1928) wrote on the snakes of East Africa, remarks that Macharia, the Wanyamwezi professional snake-catcher, handled snakes in the most fearless manner. One day he

walked into camp with an old pillowcase containing cobras, a mamba over eight feet long, puff-adders, and small fry. He opened the bag a little and peered in, then shook the receptacle until the snake he wanted was uppermost, put in his hand and drew out the mamba. Loveridge subsequently chloroformed this snake and found that the poison sacs and fangs were intact. Macharia claimed that he was immune from snake-bites because he allowed the young of poisonous species to bite him from time to time. In addition to this he rubbed a concoction of roots into the wounds. From the southern part of Portuguese East Africa Junod has collected information respecting prevention and cure. There are some magicians who can bewitch ordinary food so that it will turn into a snake in the stomach. Fortunately there is a medicine which can be introduced into the tongue so that the food is made to reveal its true character. Snake-bite is treated with the powder of a snake which has been burnt to ashes and mixed with other ingredients, the whole being treated with common salt. Cuts are made at all the joints of the body, likewise in front of the neck, and the powder is rubbed in. Children are inoculated so that when bitten the venom will not affect them. The people say that the "doctor has preceded the snake."

The Masai doctor treats snake-bite by cutting with a large thorn, pressing the wound, burning it with a glowing iron, and causing the patient to eat a root which makes him vomit. The Nandi, as already described, have to respect a snake which visits the bed of a woman. The people prefer, however, that the snakes should not visit them. In order to prevent this, they place upright on the roof of the hut a stick from the sacred tree *Carissa edulis*. There are several kinds of wood which are made into charms which are supposed to keep snakes out of the house. The principal medicine-man carries in his bag certain snakes from which he derives his power. When a man has been bitten by a snake, he is scarified and made to drink tobacco water.

Bruce (1804) inquired into the subject of immunity from snake-bite. He states that the remedies of the Nuba and the Abyssinians are derived from different shrubs which he examined and described in detail. When a person is bitten, the people chew some of the remedial root and apply it to the wound, which is sometimes sucked. If this root is chewed frequently in a morning, immunity against snake-bite is given. In order to be efficacious, the roots have to be ground to powder by the hands of a virgin; if this powder has

been correctly made, it may be moistened, rubbed on the hand, and relied on to prevent a snake or scorpion from biting.

The backbone of a python wrapped in bark and hung in the house is regarded by the Wa Ganda as a preventive of colic and convulsions. At Fauvera the fat of the python is considered as a specific against earache and rheumatism. At Ngalangi, Angola, I observed a chief wearing two necklaces made from the vertebrae of a python. He declared that these ornaments, owing to the suppleness of the python, cured his rheumatism.

A man might reasonably think himself immune because he made quick recovery after being bitten. Possibly the snake had recently emptied its glands; or the man may have been only slightly struck by one of the fangs.

The evidence respecting immunity and snake-medicines may be grouped under four headings.

I. Immunity from the bite of snakes as a result of:
   (1) Inherited power.
   (2) Membership of a secret society having the snake as an emblem.
   (3) Immunity as a result of training, including inoculation.

II. Treatment of snake-bite by rational and magical methods.

III. The wearing of charms against snake-bite.

IV. The use of snake fat, snake skin, or pulverized snake as a cure for snake-bite, also as a cure or preventive for certain specific ailments.

Most observers have remarked on the fearlessness with which priests and priestesses handle large pythons. These snakes are, however, non-poisonous, and their general harmlessness and domesticability are well attested. Very seldom do they attack human beings. The question of immunity in handling poisonous snakes is another problem, but in this connection it must be admitted that many poisonous snakes, unless disturbed suddenly and startled, are reluctant to strike. It is a matter of common observation that certain individuals, above all others, have an indefinable influence over various domestic animals, such as horses, mules, camels, and oxen. In the language of everyday speech, "he manages them well." Another person, possibly as a result of his own nervousness, makes the animals restive and troublesome. It is impossible to explain this subtle influence and competent handling fully and satisfactorily, but there is no doubt a basis of observation and inference. At the outset

it must be recognized that primitive man has deep faith in his magical protections; this gives the snake-medicine-man full confidence in his own abilities; consequently he is calm, imperturbable, and capable of quick action. Primitive people show a marvelous acquaintance with the most minute habits and movements of animals. The snake-man no doubt knows every sign and symptom the reptile makes. There may be times at which snakes can be handled with some freedom, for example, when they are waking from sleep or hibernation.

Evidence relating to cures from snake-bite indicates that the treatment to some extent rests on a basis of common sense; it is by no means entirely magical. When beliefs in the efficacy of the parts of the python are found, especially if near to centers of python worship, there is a fair assumption that such beliefs may be derived from ideas of the sanctity of the python. So widespread is the use of parts of animals in primitive medicine that it would be unjustifiable to deduce the employment of snake remedies in general from some now forgotten snake cult. There is one possibility which should not be overlooked in considering immunity. Python and snake worship were undoubtedly more firmly established in Africa years ago than they are at present. It may well be that in cases of alleged immunity, especially when the immunity is said to be hereditary, we are dealing with a survival of some power formerly associated with a priesthood specially concerned with snake worship.

Following a presentation of these data relating to snake worship, cults, and beliefs of Africa, there remains the problem of external or internal origin. In addition to this it is necessary to consider the interrelationship of the concepts which have been detailed. If these concepts are of internal origin, what is their probable genesis? What are the migratory lines within Africa? And to what extent are the various snake concepts allied with geographical and cultural areas?

V. DISTRIBUTION OF BELIEFS AND PROBABLE LINES OF MIGRATION

In connection with this division of the subject the following points are important:

(1) The possible relationship of the python-worshiping centers of Uganda and Nigeria.

(2) The geographical distribution of each of the main groups of snake beliefs.

(3) The possible spatial and temporal relationships of these beliefs.

(4) Correlation of python worship and snake beliefs with other factors of African culture. In other words, what are the racial and cultural affinities of these concepts and practices surrounding the serpent?

Although these lines of inquiry have been set out as separate items, it is clear that the four are to a great extent mutually dependent.

One of the most important questions is the possible relationship between the python worship of Uganda and that of West Africa. The points of comparison between these two centers have already been given in detail. Briefly, they are: The acceptance of the python as a supernatural being; the housing of the reptile, which is fed and generally cared for; the appointment of priests and priestesses who undergo special preparation; belief in the python as a source of productiveness in relation to human fecundity, agriculture, and fishing; making of petitions and the offering of sacrifices; ecstatic dances of priests and priestesses. These go into trance during which they prophesy and answer the requests of worshipers. These points suggest relation rather than independent origin, though it has to be admitted that the points of resemblance are of a rather general nature. Zoological observations prove that the python is likely to be accepted anywhere as an object of adoration. The idea of an indwelling being is fundamental to all primitive thought with regard to animal life. Almost every cult demands the services of priests and priestesses, who usually dance themselves into hysteria before prophesying. The concept of fecundity in connection with the python is apt to arise at any time and at any place because of the reptile's

prolificacy. The value of these resemblances lies in the fact that they all occur together in each of the python-worshiping centers which lie on lines of known migrations.

Knowledge of racial migrations in Africa points to the probability that python worship passed across the continent from east to west. To a certain extent the movements of African races are understood; the defect of our knowledge lies in the absence of a chronology for the mass movements of races. It is known, however, that under Hamitic pressure in the Horn of Africa the primitive Negro of the Lake Region moved across the continent from east to west, sending branches of the migratory stem into the Congo area, in which the movement was from north to south and from east to west. There is not a fragment of evidence to suggest that the intrusive Hamites brought python worship with them.

The most reasonable suggestion is that the worship is indigenous to the early Negroes of Uganda though the ritual is now practiced by people who are somatically and linguistically Hamitic. The migration of python worship was probably of a purely racial character. The forms of worship are found in their fullest structure and activity at both ends of the main racial migratory line; that is, in Uganda at the eastern end, and southern Nigeria and Dahomey at the western end of the line. Around the main eastern and western centers are sporadic beliefs in the supernatural nature of the python, to which respect is shown. The terminus of the Congo forest line of the migration is in Lango, where snake beliefs and practices are strong, though there is no actual python worship. The Dinka, living one-third of the way across from east to west, encourage pythons to live in their huts. According to Schweinfurth, the reptiles were respected, fed, and called by name.

Python worship is most perfect in detail in Uganda, its hypothetical source of origin. Here there are sacred cows for supplying milk to the python. The rites by which the royal dead pass into pythons are well established. There is clearer evidence respecting the supplications of childless people. When the main masses of migrants had passed across the continent, they were fifteen degrees north of the equator; that is, to the north of Dahomey, Ashanti, and Nigeria. Owing to pressure from the Fulani and the Hausa, these Negro tribes from East Africa had to move south into the unfavorable coast regions of the area from Liberia to the mouth of the Niger. It is precisely in these non-Bantu regions that python worship, cults, and beliefs are found at present. They were excep-

tionally strong at Brass, the terminus of some of the oldest of these racial migrations.

The idea of the snake as an announcer of conception and as a symbol of fecundity shows no geographical distribution which is capable of supporting a special theory. The best examples of the birth-fecundity snake concept come from Senegal, central Congo, and Kenya, so giving a line roughly corresponding with the hypothetical line of python worship. The rainbow snake is found everywhere, notably among the Yoruba, Hausa, Bavili, Zulu, Zande, and Masai. The rainbow snake, guardian monster myths are like those from Semitic sources, such as are detailed by Robertson Smith in his "Religion of the Semites." There is correspondence only in general concept of demons in snake monsters which guard a well, a ruin, or a sacred spot. If one follows an inclination to link these snake monster beliefs of Africa with Semitic migrations which are known to have taken place in North and East Africa, there at once occurs a difficulty. A very widely distributed series of rainbow snake, well guardian monsters is to be found in the mythology of the aborigines of Australia, and how is their cultural, or other contact with the Semites, to be proved? It seems wiser to regard the rainbow snake monster as an independent local product resulting, as the zoological discussion suggests, in a natural association of snakes, water, wells, rain, and rainbows.

It is always possible, of course, that before the first dispersal of mankind there were certain fundamental magical beliefs, possibly including ideas of snake monsters, and that these spread with the first distribution of the human race. We do not, however, find support for such an idea in considering the beliefs of such peripheral and early migrants as the Tasmanians, Tierra del Fuegians, Veddas, Andamanese, and Negritos. Had the snake monster myth been generated in very early prehistoric times, one might reasonably expect some kind of marginal distribution. The snake paintings of South Africa are usually classed as Bushman products, and in general great antiquity is accepted. The Bushmen used to live at least as far north as the region of Lake Victoria Nyanza, and there is the possibility that they came into racial and cultural contact with the python worshipers of that region. On the other hand the zoological evidence will make clear that there is good reason why beliefs in snake monsters of the type depicted should have developed *in situ*. Some snakes of the region have the very peculiarity which is shown in the cave paintings, namely, the possession of prominent head scales.

There are two folklore stories, one from Senegal, the other from northern Nigeria, which might be reasonably regarded as the by-products of a decadent python worship. Bosman (1700) states that at Whydah, Dahomey, the sacred monster python appeared to the most beautiful girls, who were then claimed for service in the python temple. The present-day stories tell of snake monsters which appeared to girls with the intention of capturing or devouring them, but there is nothing more than this general resemblance of ideas to suggest a cultural and historical connection. If such a union of ancient belief and folklore is accepted, there arises the difficulty of disposing of the story of the girl-devouring snake of Japan. This tale is fundamentally like those from West Africa, and there is considerable possibility of such stories having independent invention wherever large snakes exist.

This point illustrates the almost insuperable difficulty of judging the extent of relationship among the main classes of snake beliefs which have been described. Examination of python worship, snake-monster myths, reincarnation, transformation, snake-fecundity ideas, and alleged immunity, shows two basic concepts which are seldom absent; these are the reincarnation and birth-snake ideas. The latter may be described as a derivative of the former, so in tracing out similarities there is only one really basic concept, namely, that of reincarnation. This is such a widespread and generic kind of concept that it cannot be received as evidence of the derivation of one class of snake beliefs from another. Krapf, in relating an East African story of reincarnation in a snake, says that the idea was taken from the Hindus. Werner tells the story of the snake-demon guardian of ruins near Malindi, and concludes by reference to the similarity of the tale and others of like kind, with those of Semitic origin. Tremearne has collected many West African stories of jinns in snakes. He says that the Hausa have borrowed many of their ideas from the Arabs. Bearing in mind that Semites have migrated along the north and down the east of Africa from pre-Islamic times, it is certain that they have left their mark on every branch of thought and activity. Semitic snake beliefs, such as those given by Robertson Smith in "The Religion of the Semites," leave a reader willing to admit the influence of the Semites on African beliefs in snake demons and guardian monsters. These beliefs are certainly more common on the two main lines of Semitic incursion than they are elsewhere in Africa. Something too must be allowed for the general ring of a story, or a series of stories; almost any resemblances, except those

depending on a comparison of many unusual and minute items, can be explained away one by one. In ethnology, as in legal proceedings, it is not only permissible, but good method, to analyze each detail of evidence. Nevertheless the mental impression produced by the evidence as a whole is of importance. It is unfair to dispose of items of resemblance one by one, without regard to the impression produced by their union.

Consider, for instance, the idea of the ancestor visiting the kraal in the form of a snake. This concept is of unbroken distribution from Lake Rudolph to Natal, from the Suk to the Zulu. The idea is a simple one which on our own showing, from zoological considerations, might rise times without number. In spite of this I am willing to believe that the idea represents a spread of thought rather than a number of independent origins. The tract over which this idea is found is, owing to geographical factors, a highway covering more than half the length of the continent; therefore one can be sure of the ease of communication. Moreover, there have been waves of Hamitic invasion down this area with a resultant culture of considerable uniformity. Again, the acceptance of an idea is easier than the invention of one, especially in grades of society where stereotyped concepts and reactions of a formal kind are the rule. On our own showing, ideas of reincarnation might arise from sloughing of the skin, hibernation, and the frequenting of burial places, but the demonstration that they did so presents a difficult problem.

Zoological evidence will suggest the probable rise of a snake cult wherever there are snakes. In addition to this, analysis of zoological data will show the possibility of a rational zoological basis for each variety of snake beliefs. But the instance of East Africa shows an easy communication from north to south, and the line is one characterized by somewhat uniform culture. With these points in view, I think the idea of the ancestral snake visitor is transmitted rather than separately invented in many centers. There is an elaborate process of reasoning by analogy involved in the transition from observation to the formation of definite beliefs and practices. Therefore it would appear illogical to urge independent origin against the more facile method of transmission among adjacent peoples. Ancient racial and linguistic affinities of the Hamites and Semites have been postulated. Their origin is said to have been in southwest Asia, whence they came in successive streams into the Horn of Africa, and passed down the eastern side of the continent. It is certain that the Hamites came into contact with the python worshipers of

Uganda. But the visiting snake ancestor is not part of the python worship of that region, and there is no justification for supposing that the Hamites detached a single belief which they then carried southward.

Ananikian's account of the folklore of Iran and Armenia suggests that the ideas of visiting snakes and snake monsters may have been brought from those regions, which are the hypothetical home of the Hamites. The tales related by Ananikian mention several points which occur in the snake beliefs of East Africa. These are the idea of an ancestor visiting the home in the form of a snake which has to be fed with milk. Shahapet, the Iranian serpent ghost, appears both as man and as serpent in order to guard houses and graves. The guardian house snake of Egypt has already been described. Common to Iran, Armenia, and East Africa is the idea that the serpent brings good luck to the house. The reptile must be treated kindly and respectfully; for, if it departs in anger, there will be great misfortune. East African customs of making sacrifice to the visiting snake have been discussed. The snake monster, guardian of treasure and thief of girls, is an Iranian and Armenian motive of folklore. In parts of east and northeast Africa the monster is regarded as still functioning, and sacrificial offerings are made. In the regions of Iran and Armenia, somewhere near the hypothetical home of the Hamites and Semites, is to be observed in folklore the residue of beliefs, which in Africa at the present time form an integral part of tribal life. This is especially true of the ancestral snake visitor concept. Survival of a cult in greatest force, at a point farthest from its place of origin, was an axiom of the methodology of the late W. H. R. Rivers. Dixon also, in his "Building of Cultures," has shown the same possibility, with the reservation that the factor may survive in its pristine strength at the place of origin. A theory which derives East African from Asiatic beliefs is therefore in harmony with the known facts of snake beliefs in Asia and Africa, while the hypothesis agrees well with what is known of the basic principles of culture migration.

The diffusion of the visiting snake concept would naturally be strengthened by a northerly reflux of Zulu tribes, who more than others have fostered this snake belief. The Yao, for example, have the idea of a visiting snake ancestor, but they did not take from their Zulu opponents the full force of the concept. Zulu invasion passed from south to north over country, which may already have been in acceptance of the snake-ancestor-visitor idea, communicated by the passage of Hamites from north to south. This suggestion of a spread

and reflux of the concept may account for its firm establishment from Natal to Lake Rudolph.

Python worship of West Africa is found to be strongly entrenched among people of Negro blood who speak non-Bantu languages, and of these the Ijaw are the best example. In East and West Africa the python is associated with success in agriculture and fishing. These occupations were followed by Negroes who were driven out by pastoral immigrants. Beyond the single instance of sacred cows being kept to supply milk to the pythons, there is no association of python worship and pastoral pursuits.

My general conclusion is that python worship is an indigenous factor of Negro culture; but on the contrary African ideas of rainbow snakes, snake monsters, and birth-snakes, are derived from Hamito-Semitic beliefs of southwestern Asia.

The possibility of these various beliefs having originated outside Africa is further discussed in the next chapter by surveying serpent beliefs in many parts of the world.

VI. THE QUESTION OF AN EXTERNAL ORIGIN OF AFRICAN SERPENT BELIEFS

A cursory survey of snake worship in all parts of the world has been given in the Hastings Dictionary of Religion and Ethics, though many of the instances given are far too vague to be classed under such a heading. J. G. Frazer has given in "Totemism and Exogamy" a list of people who regard the snake as their totem. Such an enumeration might be extended or greatly restricted, according to the precise meaning which is attached to the term "totemism." Oldham (1905) has produced a book stressing relationship between the serpent and the sun in primitive and classical belief. In 1892 Lubbock gathered instances of so-called serpent worship. He writes, "Nor do I believe that serpent worship is to be traced to any common local origin, but on the contrary, I think that it sprang up in many places and at very different times." E. B. Tylor (1871) remarks that the study of serpent worship is "a rational and instructive subject of inquiry, especially notable for its width of range in mythology and religion." Tylor then brings from all parts of the world examples of what is termed ophiolatry, the word being used in the broadest sense to include all kinds of myths and vague beliefs. Tylor wrote at a time when the incipient science of anthropology was being laid on the foundations provided by recently promulgated doctrines of biological evolution. At that time, and at the present day, there is an idea of the uniformity and parallelism of human minds. Homogeneity of construction and working of human mentality is, according to this view, productive of like ideas in the form of certain types of social organization, totemism and exogamy, and concepts of god. Present-day anthropologists are concerned with a detailed study of the origin and spread of cultural factors, usually in restricted areas. No one hypothesis will serve to explain all the facts of origin and distribution. It seems clear that each problem will have to be examined on its own merits and data. There is no rule of universal application, no golden key, evolutionary or otherwise, which will unlock every door. Some factors of material culture, such as outrigger canoes, types of tipis and moccasins, and methods of arrow release, though presenting their own peculiar difficulties, are easier to trace than those beliefs which are sometimes classed as nonmaterial or spiritual factors of culture.

Fergusson (1869), Wake (1872) and Hyde Clarke (1876) have discussed the question of serpent worship, though they have all

included much mythology and vague superstition under the heading of worship. At the time of these writings, philology, or more correctly a comparison of vocabularies, was a favorite method of approach in any anthropological problem. This comparative study of words is the method of Hyde Clarke in particular, and there is no difficulty in accepting the thesis that certain words and superstitions would be brought from West Africa to the West Indies, Central America, and Brazil during the course of the slave trade. This is no longer a thesis, but a palpable fact. Neither is there any difficulty in believing that there was an exchange of ideas among early inhabitants of India, Mesopotamia, Iran, Arabia, and eastern Europe. If, however, the inquirer insists on maintaining a definite concept of the term "snake worship," it will be found that the only real resemblance among widely separated forms of snake veneration is the employment of snakes in ceremonies which have no fundamental resemblance. But, on the contrary, if the inquirer is willing to accept the presence of several general ideas underlying snake worship as evidence of migration, there is no difficulty in proving connection. The snake seems to be generally associated with the sun, rain, guardianship, fecundity, wisdom, evil, sacred trees, reincarnation, the rainbow, the operation of demons and gods through the reptilian body, transformation, totemism, and use of snake parts in concocting medicine.

But the mere presence of such general ideas, which can be shown to arise very readily from zoological facts, cannot be reasonably accepted as evidence of culture contact.

The very general nature of so-called snake worship, and the vagueness of beliefs which are often quoted as vestiges of snake worship, are best realized by examining some of the evidence from parts of the world other than Africa.

The snake dance of the Moquis of Arizona was described in detail by Bourke in 1884, and the ceremony now attracts a large number of tourists. It is said, however, that the Hopi hold the most sacred dance of this kind when there are no alien spectators. There is processional dancing with rattlesnakes between the teeth, keeping of snakes in a sacred edifice, and liberation of the reptiles toward the four cardinal points when the rites are concluded. The ceremony is intended to assure a supply of rain. Termer has very recently (1928) described a snake dance of the Quiché Indians of Guatemala. At an annual festival snakes are gathered and placed in a house three days before the ceremonies. All the dancers are men, with the exception of the principal dancer and guardian of the snakes, who is

a woman. The dances are both comical and obscene, and during their presentation the performers have snakes inside their shirts. Rites of this kind were celebrated before the conquest at a festival described by Sahagun. In the mythology of several North American Indian tribes there are references to a snake monster which devoured men and animals. In the Iroquoian myth the monster is a horned serpent which swallowed the thunder boy, who was eventually rescued by Thunder and his warriors.

Thompson has recorded the symbolism of the snake during a Mayan initiation into the arts of sorcery. Spinden's "Ancient Civilizations of Mexico and Central America" summarizes his own observations and those of many other investigators in these fields. Serpents are shown in the early pottery of the archaic period. The serpent motive entered largely into Mayan art, and was of great importance in all subsequent arts in Central America and Mexico. In decorative art the serpent was often conventionalized, and parts of other animals were added. Sometimes a human head was placed in the jaws of the serpent, possibly to indicate its wisdom. Quetzalcoatl was represented as a feathered serpent in Mexican art. Inferences from archaeological evidence may be very misleading as the form of the serpent is peculiarly adaptable to every kind of geometrical figure, consequently symbolism is not always implied.

Garcilaso de la Vega says of the pre-Inca people, "They worship great snakes and adore the demon when he presents himself in the figure of some beast or serpent and talks with them." There is some evidence for a belief in the rainbow snake among the Bribri of Costa Rica. Captain John Smith says that among the Indians of Virginia "some have their legs, hands, breasts, and faces, cunningly embroidered with divers marks, such as beasts and serpents artificially wrought into their flesh with black spots." John Heckewelder (1762) describes the Indians of Pennsylvania and Ohio as being elaborately tattooed. He examined a veteran who bore among many designs those of the water lizard, a large snake on the right cheek and temple, and on the lower jaw the head of a wild boar. Bossu states that he saw an Indian of Arkansas with a great snake tattooed on his body to commemorate his slaughter of such a reptile. The large snake-mounds of Ohio are of great archaeological interest.

In general the findings of archaeology, of ethnology past and present, and likewise mythology, indicate that the serpent was of importance in New World beliefs, but there is nothing to indicate connection with African beliefs, with the exception of snake cults

imported from the latter continent at the time of the slave traffic with West Africa. St. John (1889) has said that few people living outside the republic of Hayti have any idea of the extent to which snake worship has entered into the voodooism of the Negro population; neither is the worship confined to the lower strata of society. St. John's statements were severely criticized, but he asserts that renewed inquiries confirmed his early findings. It is claimed that voodoo rites include initiation of novices; the presence of a sacred snake; spirit possession of priests and priestesses; ecstatic dancing; requests from worshipers; and giving the oracle after consultation with the deity which resides in the serpent. "The priestess stands on the serpent's cage and passes into convulsions during which the oracle issues from her mouth." The officiating priest sings African songs which are repeated by the bystanders.

Johnston (1910) says that snake worship in Hayti is of doubtful occurrence owing to the rarity of snakes there. Such harmless snakes as do exist are tolerated in some villages and fetish temples for their rat-killing propensities. The idea has therefore got abroad that they are kept as sacred animals by the voodoo priests and priestesses. Those seeking scientific truth on voodooism should doubt much of what has been written on this subject. Johnston rather negatives his own cautionary remarks by stating that the python worship of Africa was no doubt introduced by slaves into Hayti, Cuba, Louisiana, Carolina, Jamaica, the Guianas, and Brazil. If this is admissible, it is difficult to understand why the evidence of St. John respecting the survival of snake cults in Hayti (1889) should be discountenanced. Furthermore, Johnston's idea that snakes are rare in Hayti is a misconception, as snakes are both abundant and conspicuous on the island, though there are only a few species, and Hayti, like the rest of the Greater Antilles, has no poisonous snakes. There are boas, blind snakes, and also some colubrine snakes.

Beliefs of the Australian aborigines respecting snakes may be divided into two classes—rainbow serpent myths and certain totemic ancestors of snake form. A. R. Brown has made an extensive survey of the literature relating to the former class of beliefs. These ideas of a rainbow-snake-guardian inhabiting water holes occur in every part of Australia. The monster is injurious, though it may communicate power to medicine-men. The rainbow snake is sometimes associated with quartz because of the prismatic colors. At Boulia, Queensland, some of the medicine-men obtain their power by aid of Kenmare, a large supernatural water snake with a manlike head. This

snake drowns people, and may also do injury by pointing the bone. Sometimes a man sees this snake wriggling on the surface of the water, whereupon he runs home and calls the medicine-man. The Kabi tribe believes in two snakes of the carpet species each forty miles long. Ualali tribesmen speak of a snake monster which haunts deep water holes and swallows human beings. This creature is visible in the milky way as a dark shadow. The natives paint the snake on posts in order to make rain. Wogal is a water snake of west Australia. It is regarded as dangerous for anyone to approach the hole where this animal lives; the medicine-man only may do so. Paintings in the northwest show snakes in the act of devouring human beings, whose arms and legs are seen projecting from the monster's mouths. Spencer and Gillen say that the mound springs of the Urabunna country are explained by native tradition. These natural features are said to mark the halting places of a snake ancestor. At public ceremonies of the Warramunga the performers represent this snake by curved red bands on their bodies, and in addition to this ground drawings are made. People stroke these drawings, saying that they are soothing the snake. The Warramunga have a story of a totemic snake ancestor which kept its tail in a water hole, while its body stretched for one hundred and fifty miles. At each resting place the snake ancestor left spirit children which now enter the bodies of women.

There are poisonous sea snakes in the Pacific, but no land snakes in Polynesia east of Samoa. Possibly some form of sea snake gave rise to the Samoan legend quoted by Turner. The Samoan deity, Saveasiuleo, at once ruler of destinies of war and other affairs, had the upper part of his body reclining in the house with spirits of departed chiefs, while his extremity stretched far away into the sea in the form of an eel or serpent. Mariner refers to the Tongan's reverence for a sea snake which was supposed to be the embodiment of a god.

There is no evidence of anything approaching snake worship in China, unless one is prepared to accept the dragon as a transformed snake. In Japan there are some large, but harmless snakes; the only poisonous species is a kind of adder. The country folk look on the flesh of this reptile as a specific for most diseases. The peasants harbor a belief in a boa which is supposed to swallow women and children. Legends of Shintoism refer to battles with monstrous snakes; Susa is a hero who had a titanic conflict of this kind. He saw an elderly man and woman with a maiden between them, seated

weeping in melancholy manner. In reply to his question they said that the eight-forked serpent of Koshi came each year and devoured one of their girls. "It is now the time of its coming, and therefore do we weep," said they. The monster's eyes are red as the winter cherry. It has one body with eight heads and eight tails. Moreover its body is overgrown with moss, pines, and cedars. Its length extends over eight valleys and eight hills. Susa made the serpent drunk with *sake*. Then he drew his ten-span sword and killed the creature; and the river ran with blood.

Fergusson, relying on his own archaeological observations in India, also on classical literature from Sanskrit, Greek, and Latin sources, has dealt in some detail with the evidence for a cult of the snake as a symbol of wisdom, healing, the sun, and rain. He supposes this worship not to have been adopted by people of Aryan speech. Fergusson's details of mythology and art in reference to serpent cults and superstitions are of interest, but disappointing in that they leave the reader still in need of accounts of the keeping and feeding of snakes, their worship by priests who were masters of ceremonies, and the making of supplications with sacrifice. Fergusson wrote in 1869, and his use of terms presents difficulties. He employs the word Turanian in the sense of non-Aryan, the Turanians being a people who were ousted by the Aryans. Persians and settled Iranians gave the name Turanian to nomads of the steppe region of central Asia. Disregarding the fact that culture elements may be borrowed without racial mixture, Fergusson says, "Eventually the worship of the serpent may become a valuable test of the presence of Turanian blood in the veins of people among whom it is found to prevail." The reverence of Hindus for the cobra is a matter of common knowledge, and the snake is freely represented in conjunction with Hindu deities, also on the masks of devil dancers. For examples of anything approaching worship it is necessary to turn to modern ethnological inquiry in India. Crooke (1922) gives an account of snake worship as a Divali rite. About the beginning of the cold season the snakes hibernate, and the rites mark their departure. The cult may be connected with that of ancestors, because in India, as elsewhere, the snake is supposed to embody the family dead. The Gammallas, a caste of Telugu distillers, on Divali day bathe early in the morning. They then repair to an ant hill, the abode of snakes, prostrate themselves before it, and pour a little water into one of the holes. Offerings of flour paste are carried round the hill before being pushed into the crevices. A thread is wound five times round the

ant hill. After a day of fasting the people return to remove the thread, to offer milk, and to perform other ritual acts. An image of the cobra is made of cow dung and worshiped. Any snake which appears after this ceremony is called ungrateful, and is killed forthwith.

The Ao Nagas have many snake beliefs, but nothing that amounts to worship. There are prayers to the effect that the spirits of snakes killed in clearing forest to build a house may not take revenge. The flesh of the snake is taboo. A pregnant woman may not kill a snake, lest the child should have a tremulous tongue. To see a snake when it is going uphill is unlucky; when the snake is going downhill the sight of it is lucky. Sores are due to contact with the python. Death from snake-bite is called *apotia;* that is, it brings disgrace to the family. The property of the deceased has to be destroyed, and his name must not be mentioned with the names of the honorable dead, no matter what deeds of note he may have performed.

To the ancient Greeks snakes were sacred because dead heroes might appear in their bodies. Certain gods had been snakes, or might become visible as such. Snakes were associated with the gods in mythology and art. Snakes were kept at shrines where offerings of cakes and honey were made to them. Asklepius manifested himself through the huge, tame snakes kept in his temples. Herodotus speaks of the serpent which defended Athens and received its honey cakes as an offering. The Phoenician serpent, shown with its tail in its mouth, was a symbol of Taaut, god of the heavens. In modern European folklore there are survivals of old superstitions respecting the serpent. In Ruthenia a saucer of milk may sometimes be seen on the doorstep of a cottage. The peasant says that the milk has been placed there for a snake, who will bring bad luck if he is not fed.

Archaeological work in Mesopotamia has brought to light many examples of the snake in stone, brickwork, and pottery. Toscanne has given a large number of illustrations, combined with a summary of what is known and what is surmised, concerning the serpent in Elamitic beliefs. The antiquities portrayed show snake-men, serpents on tombs, a snake goddess with a reptile round each arm and one round her neck, a small altar with a human figure feeding a snake, two-headed snakes, and horned snakes and dragons.

Von der Osten says that from earliest times the use of the twist is found in Elam as an ornament, and the twist in the form of two interlaced snakes has a symbolical meaning. Finds at Susa prove an extensive use of snake designs for magical purposes. Von der

Osten summarizes evidence to show that stones of snake design were prayed to by childless Hindu women. The Elamite clay statuettes of the bull and the buck, both of Indian origin, are symbols of fertility; these are shown combined with the snake. Twists symbolizing snakes persist in Hittite ceramic art which is derived from Elamite precursors. Koldewey refers to serpent figures which used to be at the Ishtar gate. Jastrow describes seal cylinders showing male and female figures sitting opposite to one another with the tree of life between them, while behind the female figure is an upright serpent. The serpent is a common figure on the so-called boundary stones. Babylonian and Assyrian diviners employed designs which may afford an explanation of widespread and ancient beliefs in hybrid creatures, such as satyrs, mermaids, fauns, harpies, sphinxes, and winged serpents, all of which have persisted into modern folklore.

Probably most investigators who examined this archaeological evidence would be willing to accept much of the surmise with regard to Elamitic snake beliefs. At any rate, one may safely conjecture that the serpent was of importance to people whose civilization is the first of which there is any definite evidence. For the reason pointed out in connection with Central American snake designs we must be cautious in accepting these as evidence of snake worship.

Robertson Smith, in his "Religion of the Semites," has many references to the importance of the serpent in Semitic folklore. This point is important, because in our search for influences which may have affected African beliefs, it must be remembered that North and East Africa have been racially and culturally affected by Semitic incursions, both pre- and post-Islamic. East Africa has been deeply affected by Hamitic invasions over long periods, and the same may be said of the north of the continent. No one has given a satisfactory account of the origin of Hamites and their linguistic and other relationships with Semites; but the influence of these peoples on Africa has been unmistakable. Semitic mythology is replete with legends of serpent demons. Jinns are corporeal beings which often take the form of a snake; they are not phantoms, for, if killed, a body remains to be seen. The jinns have a mysterious power of appearing and disappearing, also of changing form. They can avenge themselves in a supernatural way by inhabiting trees and human dwellings. The snake is said to represent these jinns because of its rapid appearance and disappearance. Robertson Smith groups one class of legends under the concept of a healing snake guardian of water springs, and

sacred fountains; some of this information he has taken from Blunt's "Pilgrimage to Nejd." One typical Semitic legend tells of two men who lived a generation before Mohammed. These men set fire to a tangled thicket with the idea of bringing it under cultivation. No sooner had they done this than the demons of the place fled away with doleful cries, and, as they did so, they took the form of white serpents. Trees are said to be inhabited by spirits, which take the form of serpents when they wish to move about.

The claim that the culture of Egypt spread round the whole world makes necessary a careful examination of the evidence for snake worship in Egypt. In 1915 Elliot Smith said that if a map of the world is taken, and one plots out the geographical distribution of such remarkable customs as building of megalithic monuments, worship of sun and serpent, customs of piercing ears and tattooing, couvade, massage, complex story of creation, deluge, divine origin of kings, swastika, and mummification, there is a certain geographical distribution of the complex. If each is considered alone, there are breaks in the chain and many uncertainties. On the whole, however, Elliot Smith and Perry are of the opinion that this culture complex, along with dual organization, originated in Egypt, and was carried round the world by culture bearers. As Marett and others have pointed out, this statement involves a large number of assertions each of which requires careful individual examination. Dixon, in his "Building of Cultures," criticizes the evidence for origin of mummification in Egypt. In the "History of Tattooing and Its Significance," a section is devoted to the thesis that tattooing originated in Egypt. There was undoubtedly some tattooing in Egypt, probably as early as 2000 B.C., the most remote date for which there is any evidence of puncture tattooing. There is, however, no suggestion in the literature of ancient Egypt to warrant the opinion that tattooing originated there, or that it was ever of any social, religious, or other importance.

In view of the time and effort devoted to this question of the origin of tattooing in Egypt, with negative results so far as Professor Elliot Smith's assertions are concerned, I am reluctant to accept any statement with regard to the Egyptian origin of snake-sun beliefs. There are, however, many Egyptian serpent beliefs, both ancient and modern, which may assist in tracing the origin of African beliefs and customs.

Sayce has stated that there is a general belief in the divine character of the serpent in Egypt at the present day. Even the myths which the old Egyptians associated with the snake are still prevalent.

Popular belief still has it that as a serpent grows old, wings grow out of its body. There are also legendary serpents which kill by darting flames in the victim's face. These ideas are expressed in paintings on the tombs of the kings at Thebes. Houses have their guardian snakes which will drive out intruding snakes. The guardian snake is called *harrās-el-bēt*, the guardian of the house. Sayce's informant said that there was such a snake in his home at Helwan near Cairo. The reptile would glide over the people who were asleep, but it did no mischief. Another popular superstition is to the effect that water drunk from the horn of the rhinoceros is an antidote to snake poison. Sayce calls attention to the voyage of Paul Lucas, 1714, during which that traveler saw the wonder-working serpent which was revered by the inhabitants of Upper Egypt. The only modern customs relating to serpents are those described by Lane who tells of the exhibitions of dervishes who handle, and partially swallow, snakes which are alleged to be poisonous. Meakin describes the same kind of performances in Morocco.

Various egyptologists have extracted from the Book of the Dead and other papyri, a considerable amount of information respecting the presence of snake beliefs in early dynastic Egypt, and later.

In "Ancient Records of Egypt," Breasted has given many references to the uraeus. "Dreadful is thy serpent crest among them." "I mixed for them ointment for their serpent crests." "Thy serpent crest was mighty among them." "His majesty saw a dream by night, two serpents upon his right hand and two upon his left. Then his majesty awoke and found them not."

In describing Egyptian amulets, especially those that were wrapped in mummy swathings, Petrie interprets the uraeus as being associated with the words, "knowledge," "divine life," "royal power and judgment," and "giving life and being." Serpent's skin was sometimes worn to guard against the bite of reptiles. Amulets in serpent form were numerous; these were designed to wear round the neck, or to place on the finger, or round a staff. The serpent with arms, Nehebka, was one of the forty-two judges of the dead. According to the Book of the Dead, this serpent points out the way in the underworld.

The sun god is generally represented with the head of a sparrow-hawk. On the top of the head is a disk representing the sun, and round this is the fire-spitting serpent which destroys the sun's enemies. There are many enemies to oppose the progress of the sun across the sky. One of these, the cloud and storm serpent, is the

embodiment of all that is terrible. Isis is represented as a serpent, the ancient guardian of Ra; and to accommodate himself to her, Osiris also takes serpent form. Osiris is the type of resurrection. In Buto dwelt Uto in the form of a serpent.

The snake is associated with phallicism in a picture to which Pierret calls attention in "Le panthéon égyptien." The group shows three deities. On the right is Reshep, a Phoenician god. The central figure is the Syrian goddess Qadesh who is standing quite naked on the back of a lion. In her left hand she is holding a snake. Ammon is shown with the genital organ erect. Another picture shows Horus standing on two crocodiles, holding in each hand two snakes and a scorpion.

The song in praise of Ra says, "Thou passeth through the heights of heaven, thy heart swelleth with joy, the serpent fiend hath fallen, his arms are hewn off; the knife hath cut asunder his joints." A vignette from the Papyrus of Ani shows Ani, clad in white, spearing the serpent fiend. The Papyrus of Nu has a section on the repulsing of serpents and worms. Nu, the overseer of the house of the seal, triumphant, said "Hail! thou serpent Rerek, advance not hither." Again, from the Papyrus of Nu, there are the words, "Alighting from the boat I depart, and the serpent fiend passeth me by." A picture in this papyrus shows a man in the underworld spearing a pig, while he has a serpent attached to a cord. There is a papyrus in Leningrad which gives an account of a sailor who was cast away on an island. There he converses with a serpent of fabulous length. One of the sacred animals at Thebes was the serpent. The serpent is mentioned among secret names connected with magical practices. Erman gives a translation which reads, "As a preventive against witches cut off the head and wings of a large scarabaeus. Cook these parts in serpents' fat and drink this mixture." Maspero has collected some Egyptian text references which show the snake as a patron of agriculture. Lexa has published translations of Pyramid texts, one of which contains a formula for protection against serpents, while another formula was used for directing serpents against an enemy.

These ideas, which have prevailed in so many parts of the world in association with peoples showing great disparity of race, language, and religion, are far too vague and generic to support a theory of the world-wide distribution of serpent beliefs from one center. In Africa there are serpent concepts which correspond in a general way with any and all of these widely distributed ideas that can be reduced to a few basic concepts of fertility, reincarnation, power, and wisdom.

Although there is little evidence beyond the influx of the Hamites and Semites to support the idea of intrusive serpent concepts into Africa, another line of thought, namely, the zoological, gives many valuable suggestions respecting the association of serpent beliefs with the morphology of snakes.

VII. ZOOLOGICAL EVIDENCE AS AN EXPLANATION OF ORIGINS

If the problem of origins is approached from a zoological point of view, there is logical ground for believing that every thought connected with the snake would be likely to arise repeatedly. The main points relating to the structure and habits of serpents may be conveniently summarized under the following headings. These are then considered in relation to world-wide serpent concepts which have been classified and discussed with special reference to Africa.

(1) Quick noiseless movements which make the reptile appear and disappear mysteriously.

(2) The habit of living near graves, hollow trees, old walls of deserted ruins, and ant hills.

(3) Enormous size and crushing power of the python (Plate II).

(4) The bites of poisonous snakes have a quick and, to the primitive mind, magical mode of operating.

(5) Darting out of a forked tongue.

(6) Often brilliant colors and color phases.

(7) Casting the skin.

(8) The viviparous snakes bring forth large broods. The python lays a large number of eggs.

(9) Two-headed snakes may have given rise to popular superstitions regarding snake monsters with two or more heads.

(10) Hibernation during cold and drought. Snakes usually reappear with the seasonal rains, they swim well, and many species are seen in water.

(11) The serpent has a fixed penetrating gaze which appears to deprive the prey of powers of movement.

(12) The habit of hissing, and spreading a hood in the case of cobras.

(13) Peculiar growths, such as cephalic protuberances and spinal ridges, which have been recorded and greatly exaggerated in primitive folklore.

(14) Some snakes have a nearly quadruple penis. All snakes have a double penis.

(15) The habit of spitting venom.

(16) Peculiar method of swallowing, during which the epiglottis is protruded in tubular form. Thus breathing is possible, when to all appearances the reptile should be suffocated.

The foregoing points require further explanation to show how they might give rise to the snake beliefs under discussion.

There are, of course, many animals other than the snake which play an important part in African folklore, medicinal practices, and magico-religious beliefs. But the zoological evidence given is sufficient to show why the serpent should figure so largely in primitive beliefs and practices. There is no other animal which combines so wide a distribution with so many peculiarities, which must be very mysterious to minds not furnished with any scientific explanation.

Pythons of various kinds have a distribution ranging from the southern Sahara to Natal. The *Python sebae*, the largest of all, may be found almost anywhere in this area. The species *Python regius* is found through the Sudan from Senegal to Dafur. Pythons of some species attain enormous size, have great crushing power, are non-poisonous, are easily tamed, seldom attack human beings, and are slow to bite if handled gently. With these points in view it is not difficult to understand why the python should have been selected as a suitable snake for captivity in temples. The reptiles are easily controlled by the priests, and at the same time are harmless to those who come with petitions and sacrifices.

Association of the snake and the rainbow may arise by a very natural association of ideas. Many snakes are brilliantly colored; pythons have a brilliant iridescence of the skin when it is fresh; return from hibernation is usual when the rains begin; they are good swimmers, and may often be seen in lakes and rivers.

There are natural explanations of the association of the serpent with birth and fecundity. When the rains begin, the ground in certain localities may well appear to be bringing forth snakes by some magical process of spontaneous generation. To the Egyptians the scarabaeus was a symbol of resurrection and life. This is explicable because the eggs, laid under ground, hatched quickly and simultaneously under favorable seasonal conditions. Casting the skin may suggest a rebirth and a bringing forth of new life. The male genital organs are of a structure which would naturally lead to the association of the snake with conception and fecundity. The double penis is common to all snakes. In vipers each half of the penis bifurcates, thus giving a quadruple structure. The organ has

to be withdrawn by invagination, consequently snakes remain in the act of copulation for a considerable time.

Many travelers have passed over large tracts of Africa without seeing a snake, and this is true even in places where snakes are said to be plentiful. On this account, a critic might say that my theories presuppose very unlikely observations on the part of the natives. This, however, is quite untrue. Primitive folks are keen observers of animal life, and they will bring to the collector, with ease, an abundance of objects which he himself has been unable to find. If it be granted that the general habits and habitats are known to natives, the objection may be raised that observation is unlikely to have extended to an appreciation of anatomical structure. This point may also be refuted, for, almost everywhere in Africa, snakes are cut up to serve as food. Moreover, parts of snakes, such as the gall-bladder and fat, are used in mixing magical potions.

To people who are inclined to associate the snake with virility the expansion of the cobra's hood is suggestive. With regard to prolificacy it may be said that the young, either in the form of eggs or viviparous births, are numerous. K. P. Schmidt, whose assistance with zoological details I greatly appreciate, opened a female of the species *Bitis nasicornis* and removed thirty-one foetal young. These were arranged in two rows of fifteen and sixteen, respectively. These facts are in themselves sufficient to show why the snake is so frequently associated with ideas of the male principle, birth, conception, and fecundity. It has already been pointed out in detail how frequently such ideas are linked with python worship, the pregnancy of women, the announcement of conception, and the maturing of boys. The acceptance of a zoological hypothesis makes clear the reason why women ask the python to grant them children; the supplication of childless people was noted as a special point in the python worship of Uganda.

One important section of snake beliefs includes the transmigration of the dead into serpents, and the power of certain living people to transform themselves into snakes. The fundamental zoological facts which may have given rise to these beliefs are: the quick noiseless movements of snakes; their power to do an injury in a quick magical way, such as is supposed to be the method followed by ghosts; hibernation with quick resurrection; and the habit of sloughing the skin. It cannot be truly said that beliefs and practices centering round snakes are merely part of a wider range of superstitions focused on animal life in general. The snake, more than

any other animal, is prominent in African belief and custom. There is a worship of the snake more definite than the veneration accorded to any other creature. Serpent beliefs are classifiable into the main, and probably derivative subdivisions already detailed. But while giving serpent beliefs of Africa a distinctive place in the animal cults of the country, it is necessary to admit that such factors as reincarnation and the use of the parts in magic are of a common generic type. Totemism with belief in snake ancestors seems to form part of the group of ideas in which transmigration and transformation are prominent.

Primitive man's power of observation may be accepted as an established fact which shows that he has taken the first stage in scientific inquiry. This phase has not left him content, for in his folklore he has launched out on the troubled sea of explanations. Mythologies explain origins, and folklore tales describe the way in which the leopard got his spots, or the antelope obtained a thin neck. The stories of snake monsters are understandable both in detail and general principle. The whole series of zoological points enumerated serves as a general background for mythology and folklore relating to monster reptiles. Among these points the size, crushing power, venomous attack, rapidity, hissing, darting a forked tongue, and mode of swallowing the prey whole, are sufficient to warrant the formation of stories. The habitats of snakes in old ruins, disused wells, and caves naturally give some verisimilitude to tales of hidden monsters of snake-like form.

There are zoological reasons for a belief in two-headed snakes. In the region of Kilimanjaro there is a reptile which the inhabitants call *vitshwa wibili;* that is, "two heads," because of its slender tapering form and the similarity of its extremities. The Ba-Ila of northern Rhodesia call a certain snake *shibudikila.* The creature is said to have two heads, and its name is used idiomatically, meaning, "to come suddenly." The sight of this reptile brings bad luck. The idea of double-headedness may be ascribed to the extreme slenderness of the tail and the head. Büttikofer calls attention to the Liberian snake *Calabaria reinhardtii.* This is a small creature about two feet long, with a very blunt head and tail; the natives call it "two-headed." The very abundant African blind snakes (*Typhlops*) have a similar body form. There is perhaps a further reason for a belief in two-headed snakes through observation of certain snake-like lizards; that is, lizards without legs. These are nearly the same diameter throughout their entire length. When disturbed, they have a habit of raising the tail

in much the same manner as a snake raises its head. Only by close examination can the two ends be distinguished. E. Bretschneider, quoting Levshin's work on the Kirghiz-Kaizaks (I, p. 143), refers to a belief in two-headed snakes in Russian Turkestan. *Eryx jaculus* has a short obtuse tail and a small head. This resemblance between the head and the tail may have been the basis of the popular conception regarding two-headed snakes.

There are also dicephalous anomalies in snakes which show one body bifurcating into two heads. This bifidism is possibly due to the presence of two germ nuclei in a single embryonic disk. Or, according to Cunningham, there may have been a separation of the blastomeres produced in first cleavage. For a time the development might be independent, then later there was a partial fusion. The double-headed snake is able to grow and move, and even though the phenomenon is rare, the presence of a few instances would be most impressive. Such a creature would be shown in a village from which the story would spread rapidly. At each telling the snake would grow larger, and the number of heads would increase with the enthusiasm of the story-teller.

Sayce's information respecting the fire-spitting serpents of Egypt may have a rational basis. Certain cobras have the power of ejecting venom by a spasmodic movement of the poison gland, in such a way as to spurt the poison through the air for a considerable distance. Loveridge says, after considerable observation in East Africa, that "beyond doubt the cobra does aim at the face." In discussing the fire-spitting serpents of Egyptian mythology, Sayce relates the conversation of a Nile boatman, who said that his blindness of one eye was due to an attack by the fire-spitting serpent. The informant was, however, stating that he was attacked by the monster of fable. In truth he was probably injured by a spitting snake which has a distribution as far north as Assuan on the Nile.

There has been some guesswork to account for the snake monsters on cave walls in South Africa. Some of the snakes are horned, and others have a crest along the back. In South Africa, Peringuey's puff-adder has the nostrils turned upward and outward. The species *Bitis caudalis* is a horned adder of Southwest Africa. The horn is merely a raised scale which has no known function. The head of *Bitis nasicornis* is very large and hideous, being triangular in shape, and having an erect horn-like process arising from the tip of its nose. The *Ingongoki* is a rather rare snake of northern Rhodesia. The

ridge on its back is a hard bony structure, marked by a series of white horny scales.

In dealing with the real or supposed immunity of certain medicine-men, who claim that snake poison does not harm them, there are points of herpetology which must not be overlooked. I have already discussed the value of an early training in handling snakes without disturbing them. For all that is known to the contrary, the man who claims immunity may be speaking the truth when he says that he is safe because at intervals he allows very young snakes to bite him. But experiments of N. Morrison (*Nature*, 1928, p. 684) showed that the poison of adders eight days old was as virulent as that of adults. There may be some real value in the practice of introducing snake poison mixed with herbs into cuts in the flesh. This is part of the training of novices. These physical aspects of immunity and immunization are important; I think they support my previous suggestion, that men who claim special familiarity and immunity, either as an acquired or an hereditary power, may be the representatives of a snake-cult priesthood, now defunct. There is in Africa no liaison with animal life quite like this snake-man control with its physical basis of immunity for the man.

Thus far the discussion has succeeded in classifying the snake beliefs of Africa into definite categories, varying from definite worship to miscellaneous beliefs. It is clear that there is no justification for assuming the introduction of snake beliefs into Africa from any other country. On the contrary, the zoological evidence shows that common observation is sufficient to account for each and all of the snake cults and beliefs which have been classified. What is more important still, each type of snake belief can be satisfactorily correlated with a definite zoological fact.

VIII. SUMMARY AND CONCLUSIONS

The preliminary chapters of the inquiry were concerned with a classification of ideas which have hitherto been vaguely assembled under the term serpent worship. Although ideas merge into one another, the following arrangement has a logical and working convenience:

I. (1) Python worship.

(2) Concepts of fecundity, transmigration of souls, transformation into snakes, and totemism in the sense of a sympathetic bond between a man and the snake which is his clan token or personal emblem.

(3) Reincarnation in snakes may be that of gods, kings, demons, or commoners.

(4) Transformation takes the following aspects. A living man can turn himself into a snake, or he can temporarily send his soul into a snake. A man may claim that he can successfully command a snake to do his will, or he may turn another person into a snake which will then obey him.

(5) Inherited power over snakes may be a family asset, or immunity may be the result of membership of a secret society which has a snake as its emblem. There may be a claim that immunity results merely from inoculation with an anti-venom. Study of the means of securing immunity includes consideration of the ideas which prevail with regard to treatment of snake-bite, and the wearing of charms, including the skin and vertebrae of the snake; also the use of snake's fat because of its protective and curative properties.

(6) Mythology and functioning beliefs relating to rainbow serpents and other snake-monsters.

This classification gave a measure of clarity and precision which led to the establishment of the following points.

II. Examination of African python worship in relation to cults and beliefs from other parts of the world provides no evidence that Africa received python worship from extraneous sources. On the contrary, the evidence is strongly in favor of an indigenous origin of python worship.

III. The habits, habitats, and anatomical structure of snakes are such as to encourage the above-mentioned beliefs, in any part of the world where snakes occur. It has been shown how each of the main African snake beliefs might arise from observation and analogy. Within the African continent itself migration of ideas has probably played a more important part than has independent invention. Easy communication from east to west, and from north to south; known Hamitic and Semitic movements; also the appeal made by transmigration and fecundity ideas to all grades of society, have assisted a ready diffusion.

IV. There is nothing more than a superficial resemblance between the snake beliefs of Africa and those of ancient Egypt.

V. The most fundamental ideas of all kinds of African snake beliefs are those of reincarnation and fecundity.

VI. The distribution of python worship is clear. The main foci are the southwest shore of Lake Victoria Nyanza; also several centers in the coastal regions of the west, from Ashanti to the mouth of the Niger. Python worship was probably indigenous to an ancient, possibly aboriginal Negro population, which was driven to the west by racial pressure in the east. Eventually the python-worshiping people were forced into unfavorable situations in the Niger delta, where they are found at present. Around the main centers of python worship are python cults; also python and snake beliefs, which cluster as shown on the map of distributions.

VII. Association of the snake with conception, phallicism, and fecundity is most prevalent in the areas now devoted to python worship, though such ideas now occur without python worship.

VIII. The rainbow-snake-rain concept, with ideas of snake monsters guarding water holes, is found in all parts of Africa. There has probably been a Semitic influence on these tales, especially with regard to the introduction of jinns into the snake monsters. The concept, however, seems to be a very natural association of ideas; for we find the rainbow snake in all parts of Australia as well as in other parts of the world.

IX. The idea of a snake ancestor visiting the dwelling has a strong and clearly defined distribution from the Suk to the Zulu. Probably the idea was carried down the east of Africa by Hamites. Centuries later the Zulu, who still hold this concept tenaciously, sent many hordes to the north, up the east coast. This served to strengthen

and revive the idea of snake-ancestor visitors, wherever the concept was falling into desuetude.

X. Sometimes the visiting snake ancestor announces a conception. In other instances conception is inferred from the visit of any snake to the hut where there is a married woman. The snake-ancestor visitor and the birth-snake are probably of the same generic belief and probably both are derived from early Hamito-Semitic sources.

SUMMARY OF THE DISTRIBUTION OF PRINCIPAL FACTORS IN SNAKE BELIEFS OF AFRICA

PYTHON WORSHIP.—Whydah, Dahomey, Liberia, Mossi people of French Sudan, Benin, Brass in southern province of Nigeria, Ekoi, Ijaw, and Ibo people of Nigeria, Lango Coast north of the Congo Estuary, southeast of Lake Victoria Nyanza, the Bahima, Dinka of the Upper Nile, the Banyankole of Uganda.

RAINBOW SNAKE AND OTHER SNAKE MONSTERS.—Senegambia, northern provinces of Nigeria, Esa of southern provinces of Nigeria, Bavili of the Lango Coast, Ba-Mbala, Zulu, Makalanga, Matabele, BaThonga, Wanika near Malindi, River Muzini near Lake Victoria Nyanza, Bagesu people of Mount Elgon, Akikuyu, Zande, Betsileo.

SNAKE SOULS, TRANSFORMATION, TRANSMIGRATION OF SOULS.—Bambarra country of West Africa, Mossi people of the French Sudan, the Yoruba, the Ikwerri, the Ibibio, the Ibo, people of Katsina, Daura, and Kamuku provinces of northern Nigeria, Gwari and Kagoro people of northern Nigeria, Kouyou people of French Equatorial Africa, Azande, and region of the Drakenberg Mountains. The snake visitor, usually the announcer of a conception, and almost invariably thought to be a reincarnated ancestor, is found among the Zulu, Matabele, Yao, Anyanja, BaThonga, Wanyamwezi, MaKonde, Betsileo of Madagascar, Masai, Nandi, Kavirondo, Suk, Bari, Dinka, Latuka, Lumbwa, Kadimu people living near Lake Victoria Nyanza, Karomojo, and WaKikuyu.

SNAKE AND FECUNDITY.—Mandingo people, Ashanti (totem of python), Ibo people, Fan, Bangala, Suahili, Yoruba. The concept also accompanies those of python worship and transmigration of souls.

IMMUNITY FROM AND POWER OVER SNAKES.—Konno district of West Africa, Ekoi people, northern provinces of Nigeria, Hottentots, Bushmen, Ila-speaking people of northern Rhodesia, Zanzibar and Pemba, Wanyamwezi, BaThonga, Masai, Nandi, Abyssinia, Baganda, Fauvera.

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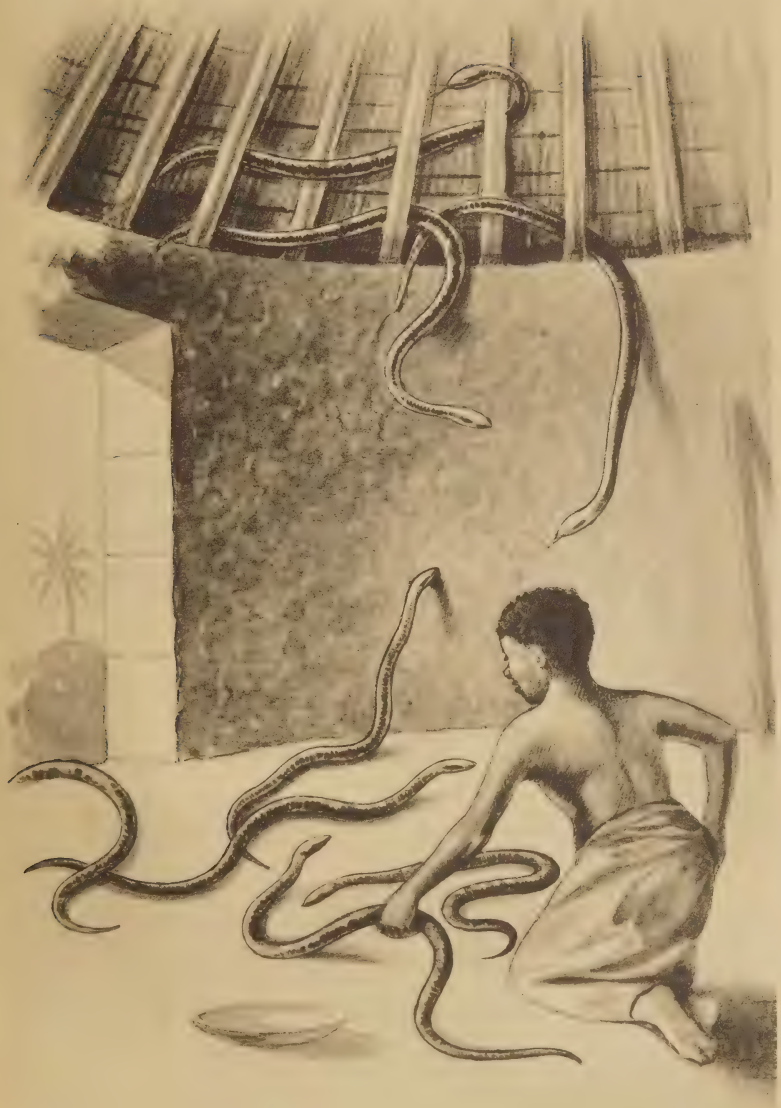
Field Museum of Natural History

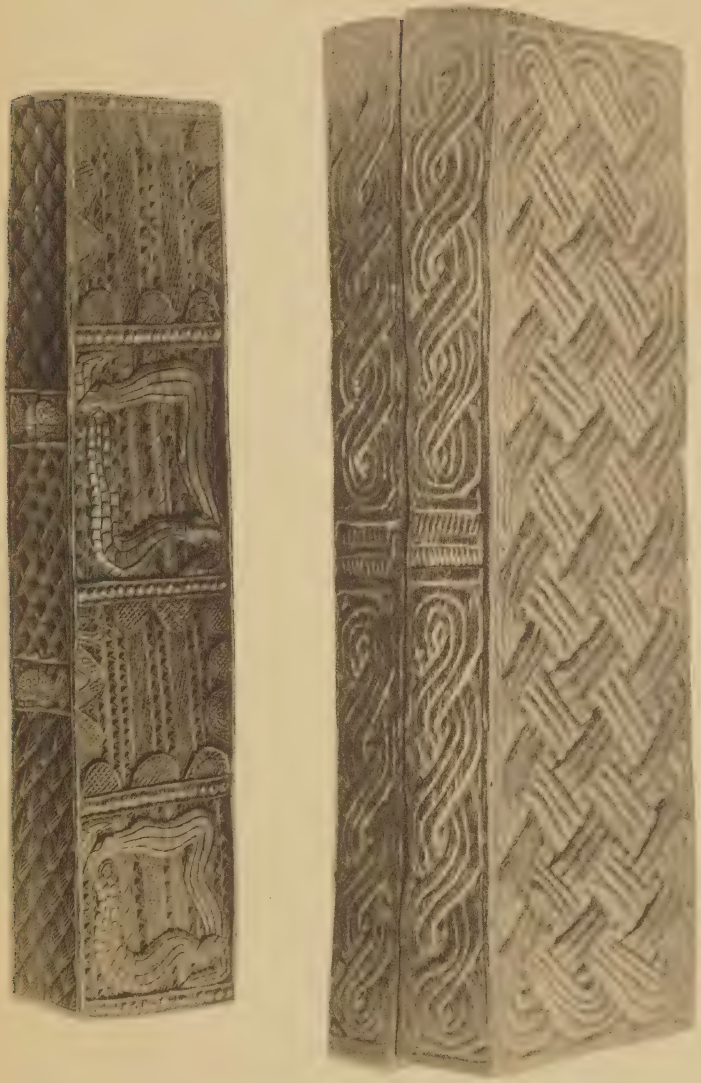
THE SACRED WHITE CROCODILE OF IBADAN, NIGERIA

CONGO PYTHON WHICH HAS JUST SWALLOWED A GOAT



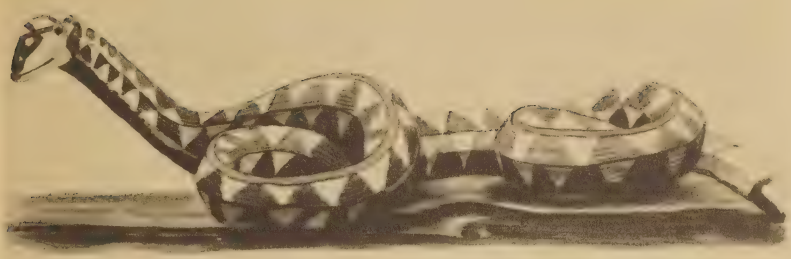
TEMPLE FOR PYTHON WORSHIP IN DAHOMEY

NATIVE OF THE FRENCH SUDAN HOLDING SACRED SNAKES

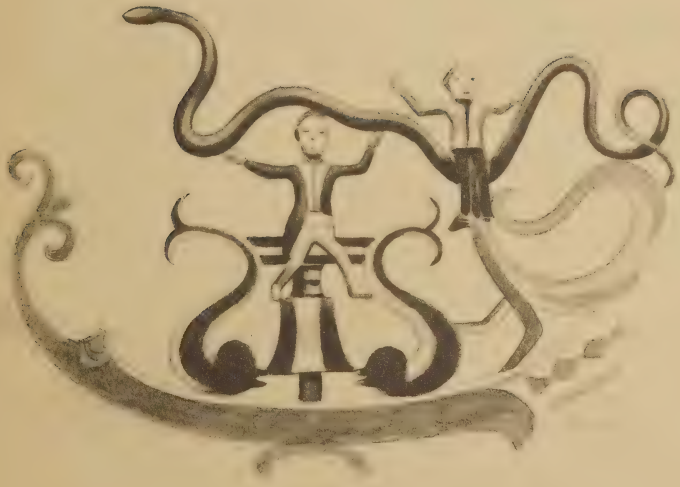


WOODEN BOXES FROM BENIN

DECORATED MEDICINE-MAN OF THE DSHANG TRIBE, CAMEROON

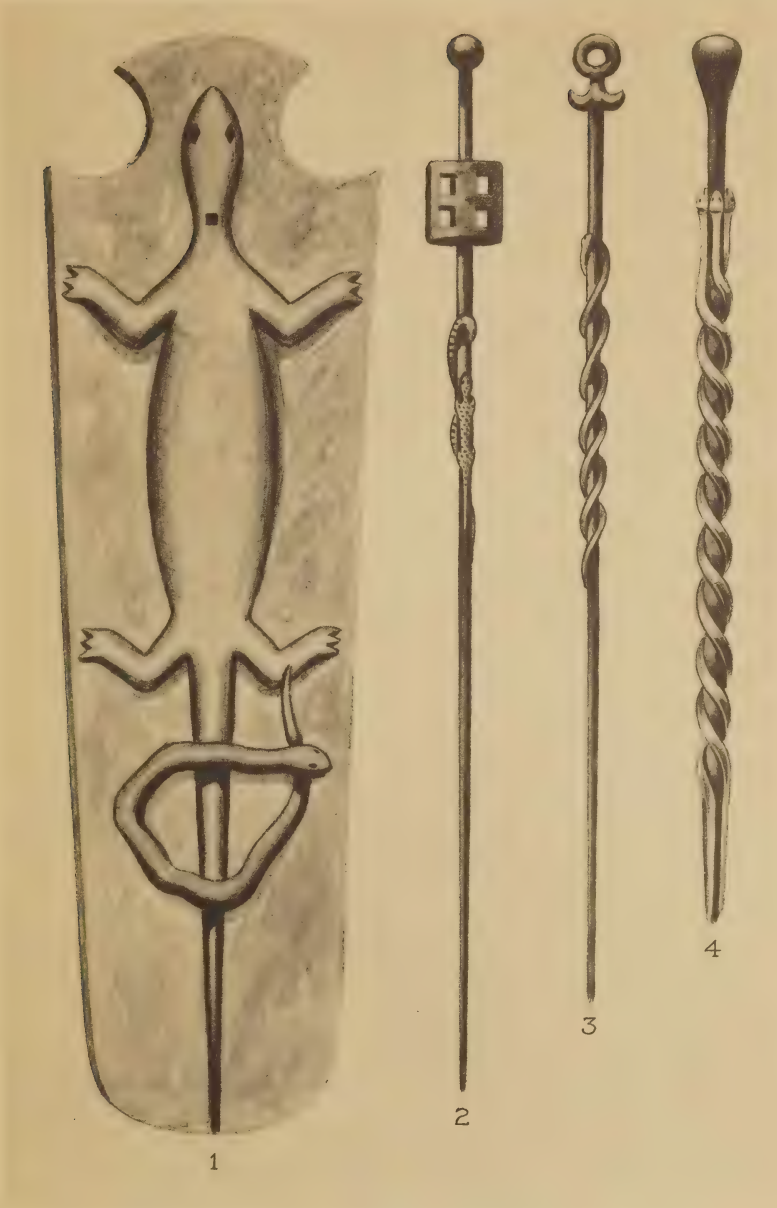


1



2

1. CARVED WOODEN SERPENT, CAMEROON. 2. PROW OF CANOE, CAMEROON



1. WOODEN PANEL FROM DAHOMEY. 2-4. ZULU STAFFS

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